UNCLASSIFIED

AD NUMBER

ADB135628

NEW LIMITATION CHANGE

TO

Approved for public release, distribution unlimited

FROM

Distribution authorized to U.S. Gov't. agencies only; Administrative/Operational Use; 2 Jun 89. Other requests shall be referred to HQS, CAC & Ft. Leavenworth, Attn: ATZL-GOP-SE, Ft. Leavenworth, KS 66027-5070.

AUTHORITY

USACGSC ltr, 02 May 2001

THIS PAGE IS UNCLASSIFIED

OTIC FILE COPY

L (2)

TEACHING MISSION ORDERS IN OFFICER ADVANCE COURSE INSTRUCTION: REALITY OR MYTH?

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

AD-B135 628

by

ROBERT J. TEZZA, MAJ, USA
B.S. UNITED STATES MILITARY ACADEMY, 1976

DTIC
ELECTE
AUG 30 1989
S D
D

Fort Leavenworth, Kansas
1989

Distribution Limited to U.S. Government agencies only; administrative/operational use; 2 June 1989. Other requests for this document must be referred to: HQS, CAC and Fort Leavenworth, ATTN: ATZL-GOP-SE, Fort Leavenworth, Kansas 66027-5070

89 8 29 029

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION / AVAILABILITY OF REPORT DISTRIBUTION LIMITED TO U.S. GOVERNMENT AGENCIES ONLY
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S)	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE 6b. OFFICE SYMBOL (If applicable) ATZK-SWD-GD	7a. NAME OF MONITORING ORGANIZATION
6c. ADDRESS (City, State, and ZIP Code) ATTN: ATZL-SWD-GD FORT LEAVENWOTH, KANSAS 66027-6900	7b. ADDRESS (City, State, and ZIP Code)
8a. NAME OF FUNDING / SPONSORING ORGANIZATION 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State, and ZIP Code)	10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
TEACHING MISSION ORDERS IN OFFICER ADVANCE COURSE INSTRUCTION: REALITY OR MYTH?

12. PERSONAL AUTHOR(S)
MAJOR ROBERT J. TEZZA

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
MASTER'S THESIS	FROM 8-2988 TO 6-1989	1989, JUNE, 2	159

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	MISSION, MISSION ORDER, CONCEPT OF OPERATION, TASK, PURPOSE, ESTIMATE, TACTICAL LANGUAGE MISSION ANALYSIS, COURSE OF ACTION DEVELOPMENT

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

THIS STUDY EXAMINES THE RELATIONSHIP BETWEEN TACTICAL INSTRUCTION IN OFFICER ADVANCE COURSES AND THE ARMY'S CURRENT COMMAND AND CONTROL DOCTRINE. USING CONTENT ANALYSIS TECHNIQUES, THE STUDY ANALYZES AND COMPARES USAIS AND USAARMS TACTICAL INSTRUCTION. THIS ANALYSIS AND COMPARISON FOCUSES ON THE SUBSTANCE, CONTENT, AND CONSTRUCTION OF MISSION STATEMENTS. THIS STUDY REVEALS USAIS ORDERS ACHIEVE A RATIO OF FAVORABLE TO UNFAVORABLE CONTENT OVER TWO TIMES GREATER THAN USAARMS. ALTHOUGH MANY SIMILARITIES EXIST BETWEEN BOTH SCHOOLS' INSTRUCTION, THIS STUDY DISCOVERS USAIS TEACHES MISSION ANALYSIS AND COURSE OF DEVELOPMENT DIFFERENT FROM USAARMS. MOREOVER, USAIS EMPHASIZES USE OF THE ARMY'S CURRENT TERMS TO CONSTRUCT MISSION STATEMENTS.

(CONTINUED ON REVERSE)

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	UNCLASSIFIED
22a. NAME OF RESPONSIBLE INDIVIDUAL	22b. TELEPHONE (Include Area Code) / 22c. OFFICE SYMBOL

DD Form 1473, JUN 86 — Previous editions are obsolete.

19. THIS STUDY CONCLUDES THE ARMY NEEDS TO MODIFY ITS CURRENT ESTIMATE PROCESS. USAIS TEACHES A METHOD OF MISSION ANALYSIS AND COURSE OF ACTION DEVELOPMENT IN TOTAL HARMONY WITH THE ARMY'S CURRENT C^2 DOCTRINE. EQUALLY IMPORTANT, THE ARMY NEEDS TO REFINE ITS TACTICAL LANGUAGE TO PROVIDE COMMANDERS NECESSARY MEANS TO EXPRESS THEIR CONCEPT OF OPERATION TO SUBORDINATES IN A CONCISE AND CLEAR MANNER.

TEACHING MISSION ORDERS IN OFFICER ADVANCE COURSE INSTRUCTION: REALITY OR MYTH?

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

ROBERT J. TEZZA, MAJ, USA
B.S. UNITED STATES MILITARY ACADEMY, 1976

Fort Leavenworth, Kansas
1989

Distribution ~~Limited~~ to U.S. Government agencies only; administrative/operational use; 2 June 1989. Other requests for this document must be referred to: HQS, CAC and Fort Leavenworth. ATTN: ATZL-GOP-SE, Fort Leavenworth, Kansas 66027-5070

MASTER OF MILITARY ARTS AND SCIENCE

THESIS APPROVAL PAGE

Name of candidate: Robert J. Tezza

Title of thesis : Teaching Mission Orders in Officer Advance Course Instruction: Reality or Myth?

Approved by

_____, Thesis Committee Chairman
LTC W. Dees Stallings, Ph.D.

_____, Member, Graduate Faculty
MAJ Orrin R. Robbins, M.A.

_____, Member, Consulting Faculty
LTC Lowndes F. Stephens, Ph.D.

Accepted this 31st day of MAY 1989 by:

_____, Director, Graduate Degree Programs
Philip J. Brookes, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

Accesion For	
NTIS CRA&I	☐
DTIC TAB	☑
Unannounced	☐
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and / or Special
B-3	

ABSTRACT

TEACHING MISSION ORDERS IN OFFICER ADVANCE COURSE INSTRUCTION: REALITY OR MYTH?, by Robert J. Tezza, USA, 159 pages.

This study examines the relationship between tactical instruction in officer advance courses and the Army's current command and control doctrine. Using content analysis techniques, the study analyzes and compares USAIS and USAARMS tactical instruction. This analysis and comparison focuses on the substance, content, and construction of mission statements. This study reveals USAIS orders achieve a ratio of favorable to unfavorable content over two times greater than USAARMS. Although many similarities exist between both schools' instruction, this study discovers USAIS teaches mission analysis and course of development different from USAARMS. Moreover, USAIS emphasizes use of the Army's current terms to construct mission statements.

The study concludes the Army needs to modify its current estimate process. USAIS teaches a method of mission analysis and course of action development in total harmony with the Army's current C^2 doctrine. Equally important, the Army needs to refine its tactical language to provide commanders necessary means to express their concept of operation to subordinates in a concise and clear manner.

ACKNOWLEDGEMENTS

I would like to thank LTC Dees Stalling, LTC Rick Stephens, and MAJ Randy Robbins. I found their insights, feedback, and input invaluable.

I owe a special thanks to Catherine, Elizabeth, Katie, and Vyonne. I could not have finished this project without their untiring support.

Finally, to the officers, NCOs, and soldiers of Company A, 1st Battalion, 61st Infantry (Mech): "Had I only known then...."

TABLE OF CONTENTS

Title	Page
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER 1 - Introduction	1
Research Question	2
Study Outline	2
Significance of the Study	3
Background	5
Assumptions	18
Definition of Terms	18
Limitations	23
Delimitation	23
End Notes	24
CHAPTER 2 - Survey of Literature	29
Background	30
The German Influence	30
Major Actors and Events	33
Doctrine	42
Communication	45
End Notes	49
CHAPTER 3 - Doctrine	52
Summary, Conclusions and Hypothesis	72
End Notes	77
CHAPTER 4 - Methodology	80
Introduction	80
The Population	81
Measurement	84
Categories	85
Coding Procedures	87
Coders	92
Reliability	96
Validity	97
End Notes	99
CHAPTER 5 - Analysis	100
Reliability and Validity	100
Imbalance Coefficient (IC)	104
The USAIS and USAARMS	111

Table of Contents Continued

Title	Page
Chapter 5 continued	
Tactical Task Analysis	121
End Notes	127
CHAPTER 6 - Conclusions and Recommendations	129
Major Discoveries	129
Conclusions	131
Recommendations	132
End Notes	137
APPENDICIES	138
APPENDIX 1 - Tactical Task List	139
APPENDIX 2 - Order Used For Initial Intercoder Reliability Check	144
BIBLIOGRAPHY	148
INITIAL DISTRIBUTION LIST	159

LIST OF TABLES

Title	Page
TABLE 1 - Intercoder Reliability Check (IRC) Results. . .	102
TABLE 2 - USAIS Imbalance Coefficient (IC) Means.	106
TABLE 3 - USAIS Imbalance Coefficient (IC) Summary. . . .	107
TABLE 4 - USAARMS Imbalance Coefficient (IC) Means. . . .	108
TABLE 5 - USAARMS Imbalance coefficient (IC) Summary. . .	109
TABLE 6 - IC and IRC Trends	110
TABLE 7 - USAIS Tactical Task Summary.	123
TABLE 8 - USAARMS Tactical Task Summary.	124

LIST OF FIGURES

Title	Page
FIGURE 1 - Mission Analysis.	39
FIGURE 2 - Restated Mission.	40
FIGURE 3 - Decision/Course of Action	41
FIGURE 4 - Tactics	61
FIGURE 5 - Mission-Concept Relationship.	65
FIGURE 6 - The Estimate in Action.	67
FIGURE 7 - The Content Analyst	82
FIGURE 8 - Work Code Units	88
FIGURE 9 - Coding Scheme	89
FIGURE 10 - Coder Data Sheet	90
FIGURE 11 - USAIS Imbalance Coefficient Matrix	93
FIGURE 12 - USAARMS Imbalance Coefficient Matrix	94
FIGURE 13 - USAIS Mission Analysis.	115
FIGURE 14 - USAIS Situation Analysis.	117
FIGURE 15 - USAIS Course of Action.	119
FIGURE 16 - USAIS Procedure for Developing a Course of Action	119

CHAPTER 1

INTRODUCTION

Doctrine is useful only if it is "...uniformly known and understood."[1] The Army's doctrine must provide the catalyst for design and implementation of its educational and training systems. So, those systems must inculcate doctrine. Furthermore, effective training results in consistent and correct application of that doctrine.

Likewise, the Army derives its command and control (C^2) system from doctrine. Organizations, processes, and facilities make up the C^2 system. This system performs four distinct functions: planning, directing, coordinating, and controlling Army units.[2] An order is the end product of the C^2 system.

The term "mission order" describes the Army's current C^2 doctrine.[3] In fact, leaders use mission statements throughout orders. Mission statements used in Paragraph 1b, Friendly Forces, help subordinates to understand how their commander's mission fits into his commander's concept of operation. Paragraph 2, Mission, contains the commander's military objective. Paragraph 2, Mission, also establishes parameters for his own concept of operation. Commanders give subordinates their missions in Paragraph

3b(1). The leader's ability to perform mission analysis and develop mission statements is of the highest importance to implement this system of C^2.

Research Question

The Army disseminates its C^2 doctrine through tactical instruction at its branch schools. This study seeks to answer the following question. Does the substance, content, and construction of mission statements in tactical instruction at the Infantry School (USAIS) and the Army Armor School (USAARMS) reflect the current C^2 doctrine?

Study Outline

The general outline of this study will first present insights as to why this research is important. Second, this study investigates, assesses, and evaluates five distinct yet related areas. Each area provides part of the answer to the proposed research question. The background will be the initial area presented. This section provides the framework of the study. Furthermore, it describes major events and personalities involved with how and why the Army got where it is today on this topic. Next, this study examines the current doctrine to derive precise standards for substance, content, and construction of mission statements. Furthermore the study analyzes and compares current communication models and concepts with the Army's doctrinal standards for mission statements. Also,

it presents the method designed to analyze the contents of orders used in mechanized/armored task force instruction at USAIS and USAARMS. The proposed methodology will verify whether tactical instruction at the USAIS and USAARMS achieves doctrinal standards for substance, content, and construction of mission statements. Later chapters discuss each school's teaching methods. Also, these chapters analyze and interpret the data generated from each school's orders. The final chapter presents conclusions concerning USAIS and USAARMS instruction on mission statement substance, content, and construction and current C^2 doctrine. Finally, this chapter recommends areas for further study.

Significance of the Study

A leader's ability to express his tactical ideas depends on his understanding of factors that affect substance, content, and construction of mission statements. This study seeks to determine if the USAIS and USAARMS uniformly know, understand, and teach the Army's C^2 doctrine.

Orders are the linchpin of the U.S. Army's C^2 system. Commanders develop orders based on information available on the situation. Commanders make conclusions based on their assessment of that information. Commanders use orders to communicate those decisions. An order is the primary

instrument a commander uses to articulate his "will." Effective orders ensure unity of command.

The mission is the nexus of the order. Mission statements in Paragraph 1 describe the friendly situation. This allows subordinates to understand the distinct contribution their commander's mission makes to his (two levels above) commander's concept. Second, Paragraph 2 contains the mission of the commander issuing the order. It is the unit's military objective. Commanders' concept must fulfill their mission. Finally, commanders articulate their concepts using mission statements in Paragraph 3, Execution. Every subordinate must be able to recognize the single contribution only his mission makes to his superior's concept. Does the current convention help a subordinate understand the relationship of his mission to his superior's concept?

Commanders imbue subordinates with a true sense of initiative and responsibility by insuring they understand the unique contribution their unit makes to his concept. This understanding secures co-operation among subordinates in accomplishing the commander's mission.[4] "The only purpose of C^2 is to implement the commander's will in pursuit of the unit's objective."[5] Does the conventional articulation of mission statements throughout operation orders allow subordinates latitude in accomplishing their assigned mission?

The Army wants incumbent and future commanders to modify their leadership behavior. The Army's emphasis on the AirLand Battle tenets of initiative and agility supports this point.[6] A subordinate's ability to exercise initiative depends on understanding his commander's concept. Therefore, leaders must possess the ability to communicate. However, current conventions of articulating mission statements represent learned communication behaviors. Has the Army's adaption of "Auftragstaktik" rendered current convention obsolete?[7] Does this shift in C^2 philosophy mandate a change in convention?

The ultimate effect of leadership is to determine where and when to apply effects of maneuver, firepower, and protection.[8] This study seeks to answer questions raised here.

Background

The Army's tactical doctrine has undergone several major revisions in the last twelve years. The 1973 Arab-Israeli War provided an impetus for change. This conflict illustrated the necessity of combined arms cooperation. Pure armored formations were easy prey for infantry equipped with long-range wire-guided anti-tank missiles (ATGMS) and protected by an impressive array of air defense systems (SAMS). Nevertheless, this war reaffirmed the tank's role as the dominant weapon of the combined arms team in mid- to high intensity warfare. General DePuy, the

commander of the newly formed Training and Doctrine Command (TRADOC), recognized these problems were not unique to that conflict. DePuy concluded the Army's tactical doctrine must address these identified problems.[9] In short, the Yom Kippur War provided a catalyst for the Army to assess its abilities to defend Central Europe.

DePuy concluded the tank, as in the 1973 Arab-Israeli War, was the dominant weapon of both NATO and Warsaw Pact forces. Furthermore, DePuy believed successful conventional defense of Europe depended on cooperation and integration of all arms. However, decisive actions would involve tank heavy formations. Consequently, DePuy assigned primary responsibility to the USAARMS to develop new doctrine.[10]

The new tactical doctrine also required an overhaul of the training system. The training system, developed and implemented in the early to mid 1970s concentrated on two areas. The system focused primarily on officer and NCO training in branch schools and programs for unit tactical training. DePuy realized branch schools must provide tactical units with quality officers and NCOs. Furthermore, these officers and NCOs required certain skills and knowledge to improve unit collective training. What was the direction DePuy gave branch schools?

The substance and methods of training employed in branch schools signified DePuy's beliefs about subordinate

leader quality. Likewise, the training reflected strategic and political realities confronting the Army in the early 1970s as well. Concerning subordinate leader quality, DePuy concluded subordinates in the American Army were unreliable because they lacked "real initiative and aggressiveness."[11] The strategic reality facing the Army was no have time to mobilize. In sum, DePuy faced a tough challenge. He must provide trained leaders to a forward deployed Army transitioning to an all volunteer force with shrinking monetary resources.

DePuy felt the Army would be forced to fight a "come as you are war," probably against a numerically superior enemy. DePuy deduced branch schools could not afford to conduct training "...tailored to focus on problems one or two echelons above the [student] current level."[12] Instead, the schools "...would have to produce soldiers and officers who were thoroughly proficient in the skills required of them immediately after graduation."[13]

Consequently, DePuy directed branch schools to emphasize warfighting skills.

> I think you train a company commander you don't educate him, you train him to use his tanks and tank platoons and infantry and anti-tank guided missiles. You teach him all about those things, about their tactical employment and about the organizations which employ them.... I think that the field manuals on the combat operations of a platoon, or a company, or a battalion, are, in fact, the operator's manuals...[14]

Company team commanders, platoon leaders, squad leaders and

tank commanders must know how to move, shoot, communicate, secure and sustain themselves.[15] This training was consistent with DePuy's assessment of the Army's capabilities in the light of world and domestic situations of the early 1970s.

TRADOC's efforts in the unit tactical training arena culminated with publication of various Army Training and Evaluation Programs (ARTEPs). The purpose of unit tactical training was to improve combat readiness. This message is crystal clear if one examines the table of contents of the ARTEPs. First, training is intense preparation for combat. Offensive, defensive, retrograde, movement to contact, and reconnaissance and security operations make up combat. These operations may occur simultaneously. Finally, combat is continuous. Therefore, tactical units must have the ability to execute those operations in various terrain, weather, and visibility conditions. DePuy believed this type of training was the precise regimen required for the Army's transition from Vietnam.[16]

Equally important, DePuy's guidance also reflected his extensive combat and mechanized experiences.

> ...it is necessary to go to checkpoint-type C^2 and mission-type orders. We trained very hard to be able to do that, to be able to call up "Charlie Six" and say, "move to Checkpoint 55." That's all I would have to tell him! ...he knew what to do when he got to Checkpoint 55. That was part of our standard operation procedure (SOP). You go there, you occupy a battle position, ...now if I wanted him to do more than that, I could tell him to go to Checkpoint 55 and put in a strong point.[17]

In brief, DePuy's experiences convinced him of the necessity for simple direct orders in combat.

Consequently, DePuy's beliefs influenced development and articulation of operation orders used by units in the field and in tactical instruction in branch service schools.[18] Furthermore, authors of the ARTEPs called various types of operations, "missions." Units undergoing tactical training used these terms throughout their operation orders. Now, types of operations and graphical control measures were used to describe the friendly situation, the mission, the concept of operation and subunit instructions. Tactics taught in the various branch schools used similar orders. As a result, these ARTEP "missions" became the Army's convention for articulation of the friendly situation, the unit's mission and the commander's concept of operation. This convention represents a learned communication behavior. Branch schools taught and unit tactical training reinforced this particular behavior. Hence, branch school instruction and ARTEPS served as mechanisms to disseminate the doctrine.[19]

General Starry offered testimony this was DePuy's intention.

> The ARTEPs are the action documents which implement the change. One can write FMs forever-if they aren't accepted and used they are useless. But if people know they are scored in an evaluation on the basis of what is in the FM, then they quickly go to the FM to see what to do.[20]

Consequently, ARTEPs focused commander's attention on how-to-fight manuals for specific techniques and methods on how to execute each type of operation.[21]

Moreover, how-to-fight manuals emphasized importance of the concept of operation over the mission. For instance, the 1977 FM 71-2, The Tank and Mechanized Infantry Battalion Task Force, described the mission as "a clear concise statement of the task to be accomplished...normally contains the who, what, when, and as appropriate, the why and where...."[22] In fact, the 1977 FM 71-2 mirrored both substance and content of the 1968 and 1972 FM 101-5, Staff Organization and Procedure.[23]

Nevertheless, these manuals did not acknowledge or emphasize several key points about the mission and mission analysis portion of the estimate. Leaders' deduced missions must: 1) support their commander's mission, and 2) establish boundaries for their concept of operation.[24] For example, these manuals discussion of mission analysis only emphasized importance of leaders identifying their task was to "seize Hill 507." However, these manuals did not highlight necessity of leaders understanding the importance of seizing Hill 507. Therefore, officers and NCOs schooled during this time period learned to develop concepts of operations focusing only on their assigned task without the clear understanding of how their mission fit into their commander's concept of operation. To summarize,

branch school and unit training produced a generation of officers not trained to analyze their mission from their commander's perspective.

In short, DePuy wanted to design and implement a training system to reorient the Army on the threat in Central Europe. General DePuy opted for a pragmatic approach exemplified by "how to do" using various procedures and techniques.

Meanwhile, the Army debated the validity of the 1976 version of FM 100-5, Operations, the so-called "Active Defense."

As previously mentioned, DePuy assigned primary responsibility for development of the new tactical doctrine to the USAARMS. General Donn Starry, then commandant of the USAARMS, played a critical role in developing new tactical doctrine. Equally important, he implemented it as V Corps commander. Starry identified several significant problems with the 1976 edition of FM 100-5. Specifically, doctrine did not address enemy follow-on forces. Starry assessed the impact of the manual this way: "We tackled the tactical problem up forward [but] we kind of brushed aside the operational level considerations...."[25] Starry would soon get an opportunity to resolve those identified problems.

General Starry succeeded General DePuy as TRADOC commander in July 1977. Starry set out to expand, refine,

and adjust basic concepts outlined in the 1976 FM 100-5, Operations. Furthermore, he encouraged all major field commands to provide input and feedback. As a result, the subsequent edition of FM 100-5 reflected major field commands' concerns.

The Army discarded "Active Defense" with publication of a new FM 100-5, Operations, in August, 1982. The battlefield was described as extremely lethal, non-linear, confusing, and unpredictable.[26] The ability of the Army to operate on the envisioned battlefield using decentralized decision-making and execution was a necessity![27] General Shoemaker, FORSCOM commander, highlighted this issue during a commander's conference at Fort Leavenworth, in April 1981. Shoemaker emphasized conditions of modern battle precluded commanders from prescribing precise methods of execution for subordinates. Starry concurred with Shoemaker's assessment and directed incorporation of "Auftragstaktik" in FM 100-5. Consequently, the Army adapted the German Army's C^2 doctrine.[28]

However, articles and reviews of the 1982 FM 100-5 highlighted deep operations not mission orders.[29] The doctrine emphasized the necessity of attacking the enemy throughout the depth of his formation. Attacking enemy units not yet in contact produced conditions for main battle area forces to seize and retain the initiative. The Field Artillery School developed and tested concepts that

"demonstrated that well-planned interdiction of the enemy's second echelons not only could blunt the force of the attack but could critically interrupt its momentum."[30] U.S. forces would generate superior effects of combat power where and when they desired by synchronizing deep operations with current close battles.[31]

Equally important, the Army formally adapted "Auftragstaktik" as its C^2 doctrine.[32] Mission orders "...clearly state the commander's objective, what he wants done and why he wants it done."[33] The Army believed commanders must ensure subordinates knew their mission and identify their main effort. Subordinates, then, could exercise initiative in accordance with their superior commander's concept.[34]

The Army, interestingly enough, has used the term "mission type order" for almost sixty years. The Army's traditional use of this term and the German concept require: 1) experienced tactical leaders, and 2) tremendous cohesion or familiarity among commanders and subordinates at every level.[35] However, one radical difference exists between the German concept and traditional American use of the term. Major T. R. Phillips' in his essay, "Solving the Tactical Equation," noted "In all armies, except the German, a commander is not permitted to give up his mission...[the] German practice permits a commander to change his mission in accordance

with the changed situation...."[36] In short, German commanders expect a different level of initiative from their subordinates than their American counterparts.

For example, an American commander gives a subordinate a "mission" to seize a particular hill. The American subordinate seizes the hill unless directed to do otherwise by his superior commander regardless of the actual situation encountered. A German subordinate receives a "mission" to seize a particular hill. Once execution begins, if the German subordinate recognizes seizure of the hill no longer makes the desired contribution to his superior's concept, he changes his "mission." Why? The German Army educates and trains subordinates to deduce the unique contribution his "mission" makes to his commander's concept. Accordingly, the subordinate's actions must insure his superior's concept remains viable.[37]

Mission orders mandates uniformity of tactical thinking. Therefore, mission orders forms the basis of the German Army's educational and training systems down to and including non-commissioned officers (NCOs).[38] Furthermore, types of tactical exercises and level of leaders involved is different from the Army's system. For example, German basic course students plan and conduct exercises acting as battalion commanders![39] Consequently, the German Army teaches junior officers and NCOs to think tactically like battalion commanders. In short, this is a stark contrast

to current levels of tactical training given to IOBC, AOBC, and ANCOC students in the Army.

As a result, platoon leaders, for example, are cognizant of the importance of their mission to the company commander's concept. Furthermore, they recognize the significance of the company's mission to the battalion commander's concept. In conclusion, the German Army taught and still teaches junior leaders to analyze their mission from the perspective of their commander.

To summarize, the German system expects and encourages subordinates to change their mission in accordance with the existing situation. On the other hand, U.S. Army commanders neither expect nor encourage subordinates to change their assigned mission regardless of the existing situation.

The Army's training doctrine continued to evolve in the early 1980's. The direction of this evolution appeared consistent with changes in the new FM 100-5. The stated purpose of training was identical. Units must develop a high degree of consistency in correct application of doctrine to ensure success in combat. FM 100-5 and FM 25-100, Training The Force, require use of mission orders. The Army believes mission orders develop junior leader's ability to exercise decentralized decision making and execution. Consequently, design of training exercises must ensure development of junior leader initiative and

improvisation. Truly, junior leaders now comprehend the tenets of initiative and agility.[40]

These developments suggest the Army's senior leaders changed their attitudes concerning subordinate quality over the last decade. DePuy's contention was grounded in bloody, personal combat experiences. Subordinates lacked "real initiative and aggressiveness;" and therefore, were unreliable. In fact, DePuy's successors believed subordinates may still be unreliable. However, they also believed subordinates could improve through experiences gained in training and a sound tactical education. (Interestingly enough, DePuy's assessment of today's Army effectiveness is extremely favorable.[41])

Therefore, branch school instruction needed to strike a balance between students needs in practical "hands on" skills and tactical problem solving skills. Students needed to develop an appreciation for brigade and task force tactics. Consequently, students must learn to recognize how their unit into their superior commander's plan.[42] In short, learning "how to think" was becoming as important as "how to do."

Although tactical doctrine had now changed, it precipitated only one change in conventional articulation of operation orders in six years. Observer Controllers (OCs) at Combat Training Centers (CTCs) hounded commander's to ensure their subordinates knew their "intent." This

eventually resulted in addition of Paragraph 3a, Intent to operation orders. Other than that, development of tactical exercises and articulation of operation orders used in leader training courses in branch schools remained virtually unchanged.

Thus far, I have provided essential background information which establishes a point of reference for the research question. To summarize, DePuy's experiences and beliefs heavily influenced the Army's current tactical doctrine and training system. Tactical instruction in branch schools affected substance, content, and construction of mission statements. The Army formally adapted the German concept of mission orders as its C^2 doctrine with publication of the August, 1982 FM 100-5, Operations. The level of initiative demanded and expected of subordinates by commanders represent a significant difference between the German concept and American use of mission orders. This form of initiative is a product of how the German Army educates and trains their leaders to analyze their mission from the perspective of their superior commander. To date, the Army has not modified current conventional articulation of mission statements in operations orders. This study is an attempt to determine whether, first, adaptation of mission orders requires a change in instruction at USAIS and USAARMS concerning substance, content, and construction of mission statements.

Second, if a change is required, I will evaluate, describe, and justify those modifications.

Assumptions

(1) The United States Army's current communication model is valid.

(2) Orders represent the message component of the communication model.

(3) Current operation order format is valid.

Definition of Terms

(1) Language: The use of audio and visual symbols to form, express, and communicate thoughts and feelings; any medium used to communicate ideas.[43]

(2) Communication: The exchange or flow of information and ideas from one person to another for the purpose of eliciting a specific behavior from the listener. The process of communication involves a sender transmitting an idea to a receiver. Effective communication occurs only if the receiver understands the exact information or idea that the sender intended to transmit and acts accordingly.[44]

(3) Command: "An order given by a commander; that is, the will of the commander expressed for the purpose of bringing about a particular action."[45]

(4) Control: "Process that identifies and corrects subordinate behavior inconsistent with the will of the commander."[46]

(5) Message: "The idea, concept, information, or feelings in your mind."[47]

(6) Substance: "The essence (crucial element) of what is said, written or drawn."[48]

(7) Content: "The meaning or significance of something as opposed to its format."[49]

(8) Construction: "The arrangement of terms and symbols to express an idea, concept, information or feeling in your mind."[50]

(9) U.S. Army Doctrine: "An Army's condensed expression of its approach to warfare: requires judgment in its application; finally, to be useful, must be uniformly known and understood."[51]

(10) U.S. Army Tactics: "The Art by which leaders arrange forces and activities on the battlefield in time and space in order to translate potential combat power into superior effects of combat power at the decisive place and time. it involves moving forces to gain positions of advantage; application of all available fire support to facilitate and exploit that advantage; and sustain friendly units before, during, and after engagements."[52]

(11) Procedures: "A procedure is a standard and detailed description of how to perform a certain task. Examples are passage of lines and relief in place."[53]

(12) Techniques: "Techniques are detailed methods for accomplishing a task. They are neither prescriptive nor definitive. They may be standard in a unit, but they are not the only way to do a task or the way a task must be done. They can be changed as needed."[54]

(13) Mission: "A statement of the task(s) to be accomplished and the purpose to be achieved through accomplishing the assigned task(s)."[55]

(14) Task: The three materials in any combat situation are the enemy force, the terrain/weather, and the friendly force. A task is the specific result(s) a subordinate unit must achieve in terms of the enemy, the terrain/weather, and the friendly forces. These results must be clearly defined and contribute to the accomplishment of the superior commander's mission.[56]

(15) Combat Order: The decision a superior commander articulates to subordinates during periods of conflict involving hostile enemy forces. These decisions are characterized by authoritative expression, clarity, brevity, completeness and timeliness.[57]

(16) Authoritative Expression: "The order reflects the commander's intention [concept] and will. The commander tells his subordinates in direct and unmistakable

terms exactly what he wants them to do [and why]. Indecisive, vague, and ambiguous language [are forbidden]. The affirmative form of expression is [imperative]."[58]

(17) Completeness: "The order prescribes only those details or methods of execution necessary to ensure that the actions of subordinate units concerned conform to the plan of operations for the entire force. The order must convey the purpose or intent of the commander so subordinate commanders will be able to accomplish their mission without further instructions."[59]

(18) Operation order: "An order that provides for coordinated action to carry out the decision of a commander in the conduct of an operation."[60]

(19) Mission Order: "The task, together with the purpose, which clearly indicates the action to be taken and the reason therefore. It does not specify how the mission is to be accomplished."[61] The superior commander must identify the subordinate unit that is the main effort. Specific requirements of a mission order are as follows:

> The order must act as point of common reference for change once execution begins.
> a. Para 1.a. The enemy situation must reflect the Cdr/Ldr's significant deductions on the enemy and terrain as it applies to his unit; it is based upon, but, not a regurgitation of his higher cdr's enemy situation.
> b. Para 1.b. The friendly forces must ensure that the subordinates of the Cdr/Ldr issuing the order understand the unique contribution of his mission to the higher commander's concept of operation. At a minimum, it will include the following:
> (1) The mission (task and purpose) of the higher

(two levels up) commander.
(2) The missions (task and purpose) of adjacent, forward, and rear units.
(3) Any attachments or detachments.
c. Paragraph 2 Mission. The mission statement is the result of mission analysis. It is a statement of the task to be [accomplished] and the purpose to be achieved. The mission is the Cdr/Ldr's military objective; it must be decisive, attainable, and defined.
d. Paragraph 3 Execution. The concept of operation describes "how" the unit is going to generate effects of combat power. At a minimum, it will include the following:
(1) Identification of the subordinate unit that is the main effort and that unit's mission (task and purpose). Successful accomplishment of the main effort's mission must result in successful accomplishment of the mission of the Cdr/Ldr issuing the order.
(2) The mission (task and purpose) of each subordinate unit that is a supporting effort. The successful accomplishment of each supporting efforts mission must result in the creation of conditions favorable for the success of the main effort.
(3) Tasking to combat support assets. These taskings must be in harmony with the results to be achieved by main and supporting efforts.
e. Service Support includes a distribution plan and allocation of combat service support resources consistent with results to be achieved by the main and supporting efforts.
f. Command and signal will identify the methods (position of Cdrs) and means (CEOI Information) to ensure subordinate actions are consistent with the Cdr/Ldr mission and identification and correction of subordinate behavior inconsistent with the Cdr/Ldr mission.[62]

(20) TRADOC Service Schools: This term used in this paper refers to the United States Army Infantry School (USAIS) and United States Army Armor School (USAARMS).

Limitations

(1) The U.S. Army's version of mission orders represents an adaption of the German concept of "Auftragstaktik."[63] Unfortunately, the majority of primary sources that would enable any researcher to gain important insights into subtleties of "Auftragstaktik," are in German. Since I do not read German, I must rely on secondary source translations. This makes it difficult to discern exactly what aspects of "Auftragstaktik" the Army tried to adapt to their C^2 doctrine.

(2) The existing research in the arena of communication theory is extensive. Therefore, this thesis will concentrate only on selected works related to the proposed research question.

Delimitations

(1) This study will concentrate on the time period of 1987-1988.

(2) This study will analyze and compare orders used in company/team level instruction at the USAIS and USAARMS.

(3) This study will not assess the particular tactics being taught at USAIS and USAARMS.

(4) This research will not render a judgment as to whether the Army's current C^2 doctrine is either good or bad.

(5) This study will not analyze feedback content.

END NOTES FOR CHAPTER 1

1. FM 100-5, Operations, (Washington, D.C.: Headquarters, Department of the Army, 1986), p. 6.

2. FM 101-5, Staff Organization and Operations, (Washington, D.C.: Headquarters, Department of the Army, 1984), pp. 1-1 and 1-2.

3. FM 100-5, Operations, (1986), p. 21.

4. FM 100-5, Operations, (1986), p. 22.

5. FM 100-5, Operations, (1986), p.22.

6. FM 100-5, Operations, (1986), pp. 15-16.

7. David K. Berlo, The Process of Communication, (San Francisco: Holt, Rinehart and Winston, Inc., 1960), pp. 13-14.

8. FM 100-5, Operations, (Washington, D.C.: Headquarters Department of the Army, 1982), p. 2-5.

9. John L. Romjue, From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973 - 1982, (Fort Monroe: United States Army Training and Doctrine Command, 1984), p. 2.

10. Paul H. Herbert, Deciding What has to be Done: General William E. Depuy and the 1976 Edition of FM 100-5, Operations, (Leavenworth Papers; No. 16), (Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, July 1988), p. 41.

11. Herbert, p. 16.

12. Herbert, p. 27.

13. Herbert, p. 27.

14. Ronnie L. Brownlee and William J. Mullen III, Changing an Army: An Oral History of General William E. DePuy, USA Retired, (Carlisle Barracks: United States Military History Institute, 1979), p. 186.

15. FM 7-7J, The Mechanized Infantry Platoon and Squad (Bradley), Final Draft, (Washington, D.C.: Headquarters, Department of the Army, 1984), p. 1-1.

16. Herbert, p. 101.

17. Brownlee and Mullen, p. 115.

18. Herbert, p. 93.

19. Herbert, p. 43.

20. Donn A. Starry, Interview with Major Wilder M. Snodgrass, 25 November 1975, (Carlisle Barracks: United States Military History Institute, 1975).

21. FM 71-2, The Tank and Mechanized Infantry Battalion Task Force, (Washington, D.C.: Headquarters, Department of the Army, 1977), pp. 3-13, B-3, and B-6.

22. FM 101-5, Staff Organization and Procedure, (Washington, D.C.: Headquarters, Department of the Army, 1954), p. 91.

23. FM 101-5, Staff Organization and Procedure, (Washington, D.C.: Headquarters, Department of the Army, 1969), p. 5-1 and H-4. Also, FM 101-5, Staff Organization and Procedure, (Washington, D.C.: Headquarters, Department of the Army, 1972), p. 5-13 and F-4.

24. FM 101-5, Staff Organization and Procedure, (Washington, D.C.: Headquarters, Department of the Army, 1950), p. 77.

25. Herbert, p. 97. This quote was taken from an interview with General Starry with the author.

26. FM 100-5, Operations, (1982), pp. 1-1 - 1-2.

27. FM 100-5, Operations (1982), p. 2-7.

28. Romjue, p. 59. This was corroborated during a telephonic interview conducted by LTC Rick Rhodes with COL Huba Wass de Czege on 12 Feb 87. COL Wass de Czege was one of the principal authors of the 1982 version of FM 100-5, Operations. During the interview he recounted General Shoemaker's concerns voiced during one of the several meetings he personally attended along with General Starry, General Shoemaker, and General Cavozos among others.

29. Romjue, p. 44.

30. Romjue, p. 37.

31. FM 100-5, Operations (Washington, D.C.: Headquarters, Department of the Army, 1982), p. 2-1.

32. Romjue, p. 58.

33. FM 100-5, Operations (1982), p. 2-7.

34. FM 100-5, Operations (1986), p. 23.

35. FM 101-5, Staff Organization and Operations, (Washington, DC: Headquarters, Department of the Army, 1984), pp. 7-2 - 7-3.

36. T. R. Phillips, "Solving the Tactical Equation," Review of Military Literature Vol XVII, No. 66, (Fort Leavenworth, KS: Command and General Staff School, September 1937), p. 30.

37. Adolph von Schell, Battle Leadership, (Columbus: The Benning Herald, 1933), p. 48-56.

38. Letter, Subject: Commanding General's Report on visit to Europe, (Fort Monroe: Headquarters, U.S. Army Training and Doctrine Command, 21 Oct 1974), pp. 98-99.

39. Bernard Close, Captain Close was a German Infantry Officer attending IOAC the fall of 1987. Captain Close offered this description of tactical training in the German Army's schools during discussion on mission orders in small group instruction.

40. FM 25-100, Training the Force, Washington, D.C.: Government Printing Office, 1987), pp. 4-5.

41. Wesley K. Roberts, "Battlefield Leaders for the Twenty-First Century: The Razor's Edge of Leadership," Military Review Vol. LXVIII, No. 11, (Fort Leavenworth, Kansas: U. S. Army Command and General Staff College, November 1988), p. 4.

42. Wayne A. Downing, "Training to Fight," Military Review, Vol. LXCI, No. 5, (Fort Leavenworth, KS: U.S. Army Command and General Staff College, May 1986), p. 22. This was also confirmed during a telephonic interview conducted by LTC Rick Rhodes with COL Huba Wass de Czege on 12 Feb 87. COL Wass de Czege recalled General Shoemaker was adamant about "having to teach people to make judgments themselves."

43. William Morris, Editor, The American Heritage Dictionary of the English Language, (Boston: American Heritage Publishing Company, 1970).

44. FM 22-100, Military Leadership (1983), p. 187.

45. JCS Pub 1, Department of Defense, Dictionary of Military and Associating Terms, (1987), p. 76.

46. FC 101-55, Corps and Division Commander and Control, (1985), pp. 3-1 - 3-2.

47. FM 22-100, Military Leadership, (1983), p. 189.

48. Morris, Dictionary.

49. Morris, Dictionary.

50. Morris, Dictionary.

51. FM 100-5, Operations, (1986), p. 6.

52. FM 100-5, Operations, (1986), p. 10-11.

53. FM 7-71, Light Infantry Company, (Washington, D.C.: Headquarters, Department of the Army, 1987), p. 2-4.

54. FM 7-71, Light Infantry Company (1987), p. 2-5.

55. FM 101-5, Staff Organization and Operations, (1984), p. 5-8.

56. James G. Thyne Jr., "Operations and Missions," (Talking paper used to discuss terms that have become confused in our tactical language, 18 February 1988), p. 4. This definition is based on the definition of "task" found in FM 25-100, Training the Force, (1987), p. 49.

57. FM 101-5, Staff Organization and Operations, (1984), pp. 7-1 - 7-2.

58. FM 101-5, Staff Organization and Operations, (1984), p. 7-2.

59. FM 101-5, Staff Organization and Operations, (1984) p. 7-1.

60. FM 101-5, Staff Organization and Operations, (1984) p. 7-2.

61. JCS Pub 1, Department of Defense, Dictionary of Military and Associated Terms, (1987), pp. 236 - 237.

62. Director, Combined Arms Tactics Department, U.S. Army Infantry School, "Comments on Skills, Knowledge and Attitudes for Officers - DECISION PAPER, (Fort Benning, GA: Tactics Division CATD, U.S. Army Infantry School, 6 May 1988), Tab B, pp. 9 - 10.

63. Romjue, From Active Defense to AirLand Battle, p. 58.

CHAPTER 2

SURVEY OF LITERATURE

The 1982 and 1986 editions of FM 100-5, Operations, generated extensive discussion and debate on C^2. This chapter should assist other researchers by providing a selected listing which 1) provides a historical perspective of "Auftragstaktik;" 2) identifies major actors and events which influenced development of the Army's current C^2 doctrine; and 3) offers insights on specific aspects of the Army's C^2 doctrine that I or others perceive to be misunderstood or require modification. On the whole, these documents provide cogent yet provocative commentary and evidence necessary to answer the research question.

This chapter organizes sources into three categories: background, doctrine, and communication. The background discusses the concept of "Auftragstaktik" and describes why and how the Army adapted "Auftragstaktik" as its C^2 doctrine. The Doctrine category addresses particular issues of the Army's current C^2 doctrine which require clarification. Finally, this chapter discusses selected communication process models and methods of content analysis used in this thesis.

BACKGROUND

The German Influence

"Auftragstaktik describes a principle of command and action for both military commanders and the soldiers subordinate to them."[1] The 1933 Truppenfuhrung (the German Army's pre-World War II Field Service Regulation) and the 1972 edition of HDv 100/200, Army Command and Control System, describe in detail the responsibilities of the leader, the subordinate, and the decision-making process.

These manuals contain several noteworthy similarities of substance. First, commanders seldom have complete and accurate information on the enemy. Consequently, commanders must expect confusing and ambiguous situations. Second, the mission is the heart and soul of the order; it is the commander's military objective. Next, leaders base decisions on assessment of the mission and situation. Moreover, leaders must give subordinates clear tasks to help them understand their concept. However, leaders do not dictate precise methods of execution. Subordinates decide "how to" best accomplish assigned tasks. Finally, leaders, alone, are responsible for their decisions. Leaders rely on staffs only for information.[2]

To summarize, "Auftragstaktik" stresses executive decision-making. It assumes uniformity of tactical thinking and decision-making at all levels. In short, "Auftragstaktik" represents a distinct command philosophy.

LTC Walter von Lossow presents a concise and lucid description of "Auftragstaktik" in his article entitled "Mission-Type Tactics Versus Order-Type Tactics." Besides reinforcing key points contained in HDv 100/200, von Lossow outlines potential risks inherent in "Auftragstaktik." Von Lossow focused on potential pernicious impacts of communications technology. Specifically, LTC von Lossow concludes over-reliance on radios for control undermines subordinate initiative. In short, von Lossow's discussion provides insights into possible limitations of the current German C^2 system.[3]

Captain Adolf von Schell, in Battle Leadership, provides numerous examples of practical application of "Auftragstaktik" under disparate conditions of actual combat. First, this book illustrates the German Army's current decision-making process outline in HDv 100/200. One chapter describes actions of an infantry company commander in Russia. This officer, despite being confronted with five different situations within a brief time period, assessed his situation each time from the perspective of his battalion commander and acted accordingly. Furthermore, von Schell highlights the commander's responsibility to know the capabilities of subordinates and their units. Von Schell stresses superiors must possess this knowledge to insure they give subordinates attainable missions. Equally important, von Schell's chapter entitled "Battlefield Psychology" illustrates leaders may give orders

differently to each subordinate. Furthermore, von Schell provides examples which underscores orders may give subordinates more freedom of action or provide additional details for different subordinates. Consequently, this chapter highlights a commander's use of mission orders depends on subordinate tactical competence and not level of command. To summarize, von Schell's work provides a valuable source of vicarious experience involving "Auftragstaktik."[4]

As discussed earlier, "Auftragstaktik" incurs certain potential risks. Major Timothy Wray's research survey titled Standing Fast: German Defensive Doctrine on the Russian Front During World War II, Pre-War to March 1943, noted high casualty rates among small unit leaders coupled with increasing reliance on radios to control subordinates eroded their confidence and aggressiveness. As a result, subordinate leaders developed behavior patterns of asking permission before acting. Accordingly, Major Wray concluded these factors, a growing reliance on radios and attrition of leaders, undermined "Auftragstaktik."[5] To sum up, Major Wray's conclusions substantiate LTC von Lossow's concerns highlighted earlier.

Thus far, I focused discussion on these selected sources for three reasons. First, this study needed to describe "Auftragstaktik." Readers will gain a fundamental understanding and appreciation of "Auftragstaktik's" underlying tenets using the 1933 Truppenfuhrung and the 1972

HDv 100/200. Next, I wanted to provide examples of "Auftragstaktik" executed under actual combat conditions. Von Schell's book provided numerous examples which illustrate and amplify major tenets of "Auftragstaktik." Finally, this study needed to provide examples which underline specific inherent problems of "Auftragstaktik." LTC von Lossow's article spotlighted selected potential problems of "Auftragstaktik." Also, Major Wray's research offered evidence which suggest potential problems of "Auftragstaktik," in fact, become serious problems in protracted conflicts. To conclude, these sources provide a solid nucleus for anyone interested in understanding "Auftragstaktik."

Major Actors and Events

Next, this chapter focuses on selections dealing with major actors and events influencing development of the Army's current C^2 doctrine. I examined numerous sources. Every source identified General William E. DePuy's efforts (the first TRADOC commander) as the catalyst of the ongoing evolution of Army doctrine.

In his oral history, Changing an Army, DePuy voices his personal attitudes and beliefs about combat. Furthermore, DePuy assesses leader and soldier quality in the Army during various time periods of his active service. Equally important, DePuy admits his horrifying experiences in Normandy hedgerows against the Germans left lasting impressions. In fact, DePuy emulated German techniques of weapons positioning

and employment in the defense and their suppressive fire techniques in offensive actions.[6] In short, the Germans taught DePuy lessons about warfighting that affected decisions he made throughout his long career.

Major Paul Herbert, in Deciding What Has to be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations, points out the 1973 Arab-Israeli War strengthen Depuy's preference for German mechanized infantry (Panzergrenadier) tactics. The Israelis performance verified DePuy's beliefs about armor-infantry cooperation in modern battle. Furthermore, DePuy knew the German Army examined and studied uses of mechanized infantry for years. Moreover, the Germans practiced employment of mechanized infantry based on these thorough studies. Also, DePuy realized the Army's recent combat experiences in Vietnam coupled with segregation of doctrinal proponency for infantry and armor undermined the Army's understanding of combined arms.[7] As a result, DePuy looked to the Germans for armored and mechanized infantry combat methods and techniques he could infuse in the Army.

However, Major Herbert points out everyone did not agree with DePuy. For instance, Major General John Cushman, Commander, Combined Arms Center (CAC) at Fort Leavenworth in 1974-75, expressed attitudes and beliefs about warfare diametrically opposed to DePuy's beliefs about warfighting. Specifically, Cushman believed tactical instruction and training must teach leaders how to think. Cushman emphasized

improving CGSC students ability to apply principles to desperate situations. In sum, Cushman favored adoption of decentralized decision-making and execution. These ideas were threaded through CAC's draft of FM 100-5. Consequently, DePuy decided to shift responsibility for writing FM 100-5 from CAC to a handful of selected officers at Headquarters, TRADOC.[8]

Likewise, DePuy's trip report detailing his visit to Europe in October 1974 corroborates Herbert's analysis. The document contained an abundance of information on tactical techniques, training methods/devices, combat developments, and so forth. The report devoted only a couple of pages to "Auftragstaktik."[9] To summarize, this document also reveals DePuy's lack of interest in decentralized C^2.

To summarize, these documents substantiate several points. First, DePuy's tactical views dominated the Army's doctrinal thinking in the 1970s. Accordingly, officer/NCO tactical instruction and unit training reflected DePuy's beliefs about warfighting.[10] Second, DePuy wanted the Army to focus on "what to do" and "how to do it." Therefore, DePuy borrowed "Panzergrenadier" tactics from the Germans. However, DePuy lacked interest in "Auftragstaktik." As a result, the Army rejected decentralized decision-making during DePuy's watch.

John L. Romjue's From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982 describes events and individuals involved in the re-write of FM 100-5 following

DePuy's retirement. General Shoemaker envisioned the need for a method of command compatible with mid-to-high intensity combat. Likewise, General Starry concurred with Shoemaker's assessment. Both generals recognized commanders could seldom specify the particular details of execution for their subordinates. Romjue summarized Starry, Shoemaker, and others thoughts concerning training junior leaders this way. The Army needed a C^2 doctrine that helped subordinates "...to chose an alternative way...when the original way no longer make sense under changed combat conditions."[11] As a result, the Army formally adapted "Auftragstaktik" as its C^2 doctrine.

Also, I examined several manuals to determine exactly what the Army adapted from "Auftragstaktik." As previously discussed, "Auftragstaktik" stresses decentralized decision-making. Therefore, I decided to look for specific trends between the Army's estimate process outlined in FM 101-5 and the German Army's decision-making process described in HDv 100/200.

Figures 1,2, and 3 depict the evolution of mission analysis, restated mission, and decision/course of action in the Army since 1968. Also, notice these chronologically ordered charts include the 1972 HDv 100/200.

My examination reveals several noteworthy observations. First, in 1968, the Army did not stress the importance of subordinates understanding the purpose of their mission. Second, around 1981, the Army began to renew emphasis on

subordinates' understanding their mission in the context of their superior's concept. Next, Figure 1 (Mission Analysis) illustrates a sharp contrast between 1968 FM 101-5 and HDv 100/200. However, this chart also accentuates remarkable similarities among the 1972 HDv 100/200, the 1981 coordinating draft of FM 100-5, and the 1984 FM 101-5. Likewise, Figure 3 (Decision/Course of Action) underscores striking parallels among the American and German documents. Also, Figure 3 demonstrates the Army's articulation of courses of action remained unchanged.

I drew two major conclusions based on these observations. First, the U.S. Army did not "adapt" "Auftragstaktik." The Army grafted the essence of the German Army's C^2 system into various manuals. In short, the Army hoped to imitate German methods of command. Second, during the period 1968-1984 (perhaps longer), the Army taught leaders decision making methods and communication behaviors not completely supportive of the Army's current C^2 doctrine.

Nevertheless, the 1982 FM 100-5 doctrine writers accomplished an important task. First, they reestablished primacy of the mission over the concept of operation. The authors of FM 100-5 recognized seemingly trivial yet radical differences between German and American methods of mission analysis. Therefore, the writers emphasized links between the mission and the principle of war objective. Furthermore, the authors stressed commanders must give clear tasks. Finally,

subordinates must understand how and why their mission fits into their superior's concept. In short, the doctrine writers stressed the leader's understanding of his mission drives development of his concept of operation. Hence, publication of the 1982 FM 100-5 marked the rebirth of decentralized decision-making and execution in the Army.

On the other hand, the Army taught a generation of officers certain behaviors and processes not consistent with mission orders. For instance, articulation of courses of action illustrates this point. Types of action became the "what" of the mission. Consequently, leaders expressed the what as a type of operation (eg., attack, defend, etc.). Equally important, leaders used tactical tasks (eg., seize, destroy, etc.) to convey the why or the purpose of the mission. In sum, branch schools, in the past, did not teach the importance of analyzing one's mission from his superior commander's perspective.

To sum up, this section highlights the impact of decisions of selected major actors and certain events on the evolution of the Army's C^2 doctrine. DePuy's interests focused on development and dissemination of combat methods and techniques; not, decentralized decision-making. Finally, the Army recognized the need for decentralized C^2 in 1981. Consequently, doctrine writers looked to the German Army as a model to develop a C^2 doctrine.

MISSION ANALYSIS

1968 FM 101-5	1972 HDv 100/200	1981 FM 100-5 (Draft)	1984 FM 101-5
"Through mission analysis, the commander determines the specified tasks to be performed to accomplish the mission..."[13]	"The mission analysis reveals - the intentions of the superior commander, - the essential performance required, - the constraints limiting one's own actions, and - whether the situation has changed fundamentally, and what conclusions are to be drawn from this."[14]	"The mission analysis must point out: - the intent of the commander - the essential tasks that must be performed... - constraints or limits on unit's actions - whether or not the situation has changed significantly enough to affect the viability of the mission."[15]	- "task(s) that must be performed - purpose to be achieved - constraints on the units' action Understanding the purpose...is important...insight is obtained as to the intentions of the superior commander."[16]

FIGURE 1

RESTATED MISSION

1968 FM 101-5	1984 FM 101-5
"A clear, concise statement of the task to be accomplished by the command. The mission statement normally contains the who, what, when, and as appropriate, the why and the where...."[17]	"...clear, concise statement of the task to be accomplished...and the purpose to be achieved."[18]

FIGURE 2

FIGURE 3

DECISION/COURSE OF ACTION

1968 FM 101-5	1972 HDv 100/200	1981 FM 100-5 (Draft)	1984 FM 101-5
"1.Type of action (eg., attack, defend) (what).	"1.One's own unit is to be named in its entirety. [who]	"...tasks for all units must be set forth, unequivocally and unambiguously. [what]	"1.Type of action (eg., attack, defend) (what).
2. Time the action will begin or be completed (when).	2.The actions of the forces are to be determined unequivocally by stating the type of combat or their other tasks. [what]	the main effort, commitment of forces and broad outlines of execution...[how]	2. Time the action will begin or be completed (when).
3. The location of the action...(where).	3.Commitment of forces, main point of effort, and the broad outline of execution...[how]	...objectives must be identified. [when]	3. The location of the action ...(where).
4. The use of available means (how)...	4. ...time of execution... [when]	The time of execution must be stated. [where]	4. The use of available means (how)...
5. The purpose of the action (why)."[19]	5.Area, ...local objective are to be clearly designated. [where]	the purpose of the action should be spelled out since it is important to link the decision to the intent of the commander."[21]	5. The purpose of the action (why)."[22]
	6.The purpose...may be mentioned if the connection between the decision and the intentions of the superior cdr is to be stressed." [why][20]		

Doctrine

FM 101-5-1, Operational Terms and Symbols, contains the Army's current tactical language. These terms and symbols represent tools used by commanders to construct mission statements. Commanders use mission statements to express their tactical concepts. Several articles and papers expressed concern over terms which I or others perceive as confusing, misunderstood, or misused. Some of those articles question if even current language fulfills leaders' needs to specify clear results to their subordinates as prescribed by mission orders.

Major John Vermillion's monograph, "Tactical Implications of the Adoption of Auftragstaktik for Command and Control of the AirLand Battlefield," clears up critical misperceptions concerning commanders responsibilities reference mission orders. "Contrary to the commonly-held notion, mission orders...are more, not less, specific, than those habitually issued today, in that they require the commander to clarify precisely his overall intentions."[22] Accordingly, mission orders cannot be ambiguous and convoluted. Instead, commanders must specify what subordinates must do. This precision truly enhances subordinates understanding of commanders' concepts. Finally, Major Vermillion deems the Army's current methods and techniques inadequate to implement mission orders. However, he does not cite any specific problems. Since Major Vermillion stressed importance of

superiors giving subordinates clear tasks, I concluded Vermillion believes leaders use the wrong terms to prepare orders.

Tactics Division, Combined Arms Tactics Department, (CATD), USAIS also discussed topics like mission orders and commander's intent. Captain Paul Melody, with assistance of several other tactics instructors, authored a talking paper, "Analysis of Commander's Intent and Mission Orders" as part of Tactics Division's Officer Professional Development Program. Melody stressed several major points. Using only FM 100-5, Operations, and FM 101-5, Staff Organization and Procedures, Melody demonstrated the linkage of the why in the mission, to the purpose, to the intent using the Army's principle of war, Objective. Most important, he listed essential ingredients required to construct a mission order. Melody concludes the essence of mission orders rests in understanding the conceptual relationship among "purpose, results and responsibility, supported by a clear tactical language."[23]

To summarize, both Vermillion and Melody's efforts made a significant contribution to this study. First, both authors establish intent is part of the mission. As such, it represents the substance of the mission. Second, both addressed the language issue. Melody emphasizes the Army needs precise terms. Likewise, Vermillion points out commander's must tell subordinates what to do. However, he

raises questions concerning the adequacy of the Army's current methods concerning preparation and issuing of orders.

This paper focuses on substance, content, and construction of mission statements. These selected articles provided assistance in understanding the term "mission." The importance of Captain James G. Thyne's talking paper, "Operations and Missions," to the study cannot be overstated. Thyne notes confusion exists between the terms "mission" and "operation." He cites the definition of mission in the 1984 FM 101-5. This manual explicitly states a "mission" includes both a task and its purpose. Based on this definition, Thyne concludes 1) operations are not synonymous with missions; and 2) missions are not synonymous with tasks. In short, Thyne asserts this misunderstanding has a significant negative impact on the Army's tactics and training.[24]

In the same vein, the now disbanded Light Infantry Task Force (LITF) attempted to clarify this issue in developing the Light Infantry Platoon MTP. The LITF attempted to meld tactical tasks with training tasks. For example, the LITF wanted to incorporate seize, a tactical task focusing a subordinate on the terrain, as a training task in the MTP. In short, the LITF sought to make the tactical and training language the same.[25]

Although written in the early 1960"s, Major David Hughes in "Our Unrecognized Battlefield Language," recognized potential use for graphical symbols to express tactical

concepts. Consequently, he argued for development of "...symbols to convey, without words, tactical missions, tasks, and responsibilities,"[26] Even today, all tactical tasks do not have symbols. For example, screen, guard, and cover are three distinct security related tasks. However, there exists only one symbol (screen). Guard and cover do not have their own unique symbol. So, this article raises questions concerning adequacy of current terms and symbols as means to assist commanders to express their concepts; and subordinates to understand their superior's intentions.

To conclude, each of these articles underscores the impact of communication skills on the leader's ability to generate "effects" of combat power. Furthermore, these articles imply, for different reasons, a correlation between the leader's ability to communicate and the level of initiative exercised by subordinates.

Communication

Communication is a process involving transmission of ideas and information. Moreover, it is the glue that binds together the Army's C^2 system. Hence, leaders must master communication skills.

The 1982 FM 100-5, Operations, stated "superior effects of combat power decides the outcome of battle."[27] Leaders decide where and when to generate effects of maneuver, firepower, and protection. This is the effect of leadership.[28] The best discussion I found on the leadership

element of combat power is Colonel Huba Wass de Czege's paper "Understanding and Developing Combat Power." Colonel Wass de Czege concludes besides possessing other talents, leaders need certain analytical skills; "must be able to exert [their] moral force;" finally, must be good listeners.[29] In short, Wass de Czege postulates a high correlation between a leader's ability to generate effects of combat power and his communication skills.

Also, this section highlights communication theories, concepts, and methodologies of content analysis which proved indispensable to my research. FM 22-100, Military Leadership, describes the Army's current communication model. The Army adapted its particular model from Professor David Berlo's S-M-C-R Model. Therefore, let us begin with his work.

Berlo's book, Communications: Scope and Purpose, served as a primer on communication theory. Besides providing a detailed analysis and explanation of his S-M-C-R Model, Berlo stressed two specific points. First, the only purpose of communication is to transmit an idea or feeling solely to extract a behavioral response from the listener. Therefore, effective communication takes place when messages are decoded by receivers as intended by senders. However, communication has not taken place if stimulus provided by senders do not result in desired responses by receivers. Furthermore, erroneously decoded messages may result in receivers making completely inappropriate or counterproductive responses.

Second, Berlo concludes "inefficiency" is the major cause of communication failures. Specifically, Berlo identifies bad communication habits as causes of inefficiency. According to Doctor Berlo, the problem "...is getting people to analyze their purposes for communicating and to specify them in terms of responses they want to obtain."[30] To summarize, Berlo's work featured relationships between ideas and language.

An idea represents an individual's creative abilities. John Condon in, Semantics and Communication, describes a process related to expressing creative ability. According to Condon, "abstracting" -- the process of perception -- involves an individuals ability to perceive the environment around them.[31] Commanders use "abstracting" when they do an estimate. They attempt to organize their observations concerning terrain, weather, enemy, and friendly forces. Therefore, the leader's ability to express his concept depends on his ability to perceive the significance of various tactical stimuli (enemy, terrain, and friendly forces). In short, abstracting enables leaders to describe and, thus, share conclusions concerning their surrounding environment.

Richard W. Budd, Robert K. Thorpe, and Lewis Donohew's text, Content Analysis of Communications, serves as an indispensible reference for anyone undertaking a project involving micro-analysis of some form of communication. The message is the essence of the communication process. This book describes major steps in developing models to assess the

message portion of communications. Budd, Et Al use concrete examples in this form of other content analysis studies to assist the reader in understanding each step in the development process. Furthermore, the authors spotlight major problems areas frequently encounter by communication analysts. Moreover, they propose various methods and techniques to minimize distortions of observations of communication under study. In short, using this source, any novice can teach himself to understand the basics of content analysis.

END NOTES FOR CHAPTER 2

1. Walter von Lossow, "Mission-Type Tactics Versus Order-Type Tactics," Military Review, Vol. , No. 6, (June 1977), p. 87.

2. Truppenfuhrung (Fort Leavenworth, Kansas: The Command and General Staff School Press, 1936), pp. 4-5. Truppenfuhrung, published on 17 October 1933, was the German Army's pre-war field service regulation. HDv 100/200, Army Command and control System (Bonn, FRG: The Federal Minister of Defense, Army Staff - 111 t, 31 August 1972) pp 3-15 thru 3-30. A study of these manuals illustrates continuity and uniformity of tactical thinking.

3. Von Lossow, pp. 88-91.

4. Adolph von Schell, Battle Leadership. (Columbus, Georgia: The Benning Herald, 1933), pp. 48-54 and pp. 11-12.

5. Timothy A. Wary, Standing Fast: German Defensive Doctrine on the Russian Front During World War II (Pre-War to March 1943. Fort Leavenworth, Kansas: Combat Studies Institute, U.S. Army Command and General Staff College, 1986), pp. 68, 71, and 105.

6. Ronnie L. Brownless and William J. Mullen III, Changing an Army: An Oral History of General William E. DePuy, USA Retired, (Carlisle Barracks: United States Military Institute, 1979) pp. 43-44. Also, Paul H. Herbert, Deciding What Has to be Done: General William E. DePuy and the 1976 Edition of Fm 100-5, Operations. (Fort Leavenworth, Kansas: Combat Studies Institute, U.S. Army Command and General Staff College, 1988), pp. 15-16.

7. Herbert, pp. 63-64.

8. Herbert, pp. 54-58.

9. Headquarters, U.S. Army Training and doctrine Command. Subject: Commanding General's report on visit to Europe, dated 21 October 1974. Enclosure 1 European Trip Book, Tab J Training in the German Army, pp. 98-99.

10. Herbert. p. 59.

11. Romjue, p. 59.

12. FM 101-5, Staff Organization and Procedures. (Washington, D.C.: Headquarters, Department of the Army, 1968), p. 5-1.

13. HDv 100-200, (1972), p. 3-13.

14. FM 100-5, Operations, (Coordinating Draft). (Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, February 1981), p. 3-10.

15. FM 101-5, Staff Organization and Operations. (Washington, D.C.: Headquarters, Department of the Army, 1984), p. 5-8.

16. FM 101-5 (1968), p. H-4.

17. FM 101-5 (1968), p. 5-8.

18. FM 101-5 (1968), p. C-4.

19. HDv 100/200 (1972), p. 3-17.

20. FM 100-5 (Coordinating Draft) (1981), p. 3-13.

21. FM 101-5 (1984), pp. E-4 and E-5.

22. John M. Vermillion, "Tactical Implications of the Adoption of Auftragstaktik for Command and Control on the AirLand Battlefield," (Monograph, School of Advanced Military Studies, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 31 December 1986), p. 7.

23. Paul E. Melody, "Analysis of Commander's Intent and Mission Orders," (Unpublished Talking Paper, 1 February 1987), p. 9.

24. James G. Thyne Jr. "Operations and Missions." (Talking paper author uses to discuss confusing terms in the Army's tactical language. In possession of the author. 18 February 1988), p. 1.

25. Director, Light Infantry Task Force, U.S. Army Infantry School, "Light Infantry Mission Training Plan (MTP) 0-6 Layout - INFORMATION PAPER, (In Possession of author. Copy obtained from member of LITF in January 1987.), Tab A, Discussion: Mission Triangle.

26. David R. Hughes. "Our Unrecognized Battlefield Language." Military Review, Vol. XLIII, No. 5, (May 1963), p. 38.

27. FM 100-5, Operations, (Washington, D.C.: Headquarters, Department of the Army, 1982), p. 2-4.

28. FM 100-5, Operations, (1982), p. 2-5.

29. Huba Wass de Czege, "Understanding and Developing Combat Power." (Fort Leavenworth, KS: School of Advanced Military Studies, 1984), p. 31.

30. David K. Berlo, The Process of Communication. (San Francisco: Holt, Rinehart and Winston, Inc., 1960), p. 12.

31. John C. Condon, Jr., "Communications: Concepts and Processes. (Englewood Cliffs, NJ: Prentice-Hall Inc., 1971, p. 20.

CHAPTER 3

DOCTRINE

This chapter analyzes and interprets a few selected doctrinal publications. The purpose is to determine precise standards for mission statements used throughout orders. Let us begin by defining doctrine.

Doctrine, for this study, is the "Army's condensed expression of its approach to warfare; requires judgment in its application; finally, to be useful must be uniformly known and understood." An analysis of this definition will assist in determining what publications require detailed study.

The "condensed expression" equates to the Army's philosophy of war. War consists of an endless number of different situations. The estimate of the situation allows leaders to exercise judgment in application of the philosophy of war to any situation. The estimate enables leaders to reach conclusions about their mission and situation. Leaders decisions must reflect these conclusions. The decision represents the leader's "concept" (idea) of how to accomplish the mission. Leaders use language to transmit their "concept" (idea) in order to elicit specific behaviors from their subordinates. This system works well when the philosophy, estimate, and language are "uniformly known and understood." Therefore, the search for doctrinal standards for mission

statements must start with FM 100-5, Operations, FM 101-5, Staff Organization and Procedures, FM 101-5-1, Operational Terms and Symbols and FM 22-100, Military Leadership.

FM 100-5, Operations, describes the Army's current philosophy of war. Four distinct, yet related, sets of principles and concepts capture the essence of this philosophy. They are the principles of war, tenets of AirLand Battle, combat power, and characteristics of attack and defense. An exact understanding of the principles of objective, unity of command, and economy of force, tenets of initiative, synchronization, and agility, and leadership as an element of combat power are important to answer the research question. In short, FM 100-5, Operations, establishes doctrinal standards concerning the substance of mission statements found throughout combat orders.

The Army's principles of war have acted as guidelines in the development and execution of tactical plans since their adoption in the 1920s. All of these principles are important. However, this study must determine which principles have the greatest impact on C^2 and why.

Our Army's first principle of war is objective. All commanders must ensure every operation is, first, directed towards a military objective that is "decisive". The Army's current FM 100-5, Operations, has articulated several critical operational concepts to clarify what is meant by "decisive." FM 100-5 defines "center of gravity" as "...sources of

strength or balance."[1] This same manual refers to "decisive points" in a tactical context. The Army must attack areas, organizations or resources to diminish an enemy's ability to resist. To summarize, "centers of gravity" and "decisive points" are ideal military objectives.

However, the leader's ability to identify "decisive points" always has been the weak link. It is difficult to define an "objective" that can be neither located in time and space; nor identified in terms of the enemy, terrain and the friendly force. Furthermore, if one is unable to define an "objective," how can one possibly allocate necessary resources to attain objective? Consequently, cogent arrangement of various combat actions in time and space becomes tenuous. Equally important, leaders waste precious resources and therefore, violate economy of force.[2]

Economy of force mandates allocation of minimum required resources to subordinates to accomplish a given mission.[3] Based on the mission, subordinates must achieve specific results in terms of enemy, terrain, and friendly force. Accordingly, commanders distribute their assets to insure subordinates have only required resources to accomplish their mission.

Commanders' concepts of operation are tools used to describe this distribution of forces and actions to subordinates. Commanders should always resource their main effort first. Next, commanders resource each supporting

effort. Supporting efforts create necessary conditions for success of the main effort. Finally, commanders build reserves using all remaining resources. Reserves give commanders flexibility to either exploit success of the main effort or react to unforseen enemy action. To summarize, efficient allocation of assets is essential for a unit to accomplish its mission.

However, war is a contest of opposing wills. Consequently, commanders must exercise moral force to overcome difficulties that inevitably occur. Commanders also exercise unity of command through his concept of operation. The concept ensures a sense of collective responsibility among subordinates.[4] The concept must act as a point of common reference for change.[5] As such, each subordinate should be able to act with confidence and exercise initiative appropriate with the situation as it exists.[6]

To summarize, commanders use unity of command to exercise economy of force to achieve their assigned objectives. A commander's mission is his military objective. It is "decisive, attainable, and defined."[7] A commander's "concept" (idea) of operation secures co-operation among his subordinates. It achieves unity of command. Finally, commanders are responsible to allocate resources to their subordinates consistent with assigned missions thereby exercising economy of force. Thus, the principles of

objective, unity of command, and economy of force form the foundation of the Army's C^2 doctrine.

The Army's C^2 system must produce tactical plans that embody the tenets of AirLand Battle.[8] Tactical plans contain mission statements used to describe the friendly situation, unit's mission and concept of operation. This research must, therefore, illustrate how the tenets manifest themselves in mission statements.

This study defines a mission as "a statement of the task to be [accomplished] and the purpose to be achieved. The mission is the unit's military objective; it must be decisive, attainable, and defined." It is necessary to illustrate the connection between the mission (task and purpose) and the principle of objective before proceeding. Tasks define results for subordinates in terms of enemy, terrain or friendly forces. Equally important, tasks define locations (where) and times (when) these results must occur. The purpose (why) justifies the task. The purpose is the unique contribution only your unit makes to the commander's concept. The purpose makes the mission decisive! Commanders assign tasks to subordinates based on their conclusions about terrain, enemy, time available, and friendly troops. Furthermore, these assigned tasks reflect the experience of commanders. Consequently, assigned missions are attainable.[9]

How do the tenets relate to the mission and principle of objective? Let us examine initiative, first. FM 100-5 states

initiative "applied to leaders...requires a willingness and ability to act independently within the framework of the higher commander's intent."[10] The purpose of the mission establishes parameters for subordinates to exercise initiative. The exercise of initiative manifests itself in the subordinates ability to "re-task" himself consistent with situations that develop. The subordinate's actions must achieve the purpose. This ensures the subordinate's commander's concept of operation remains intact.

Agility is the ability to act faster than the enemy.[11] Subordinates mental ability to recognize significant changes in the situation is the basis of agility. Equally important, subordinates must have confidence and willingness to implement their decisions. Synchronization "arrange[s] activities on the battlefield in time, space, and purpose..."[12] Tasks assigned to subordinates represent battlefield activity. When and where subordinates must accomplish those tasks represents arrangement of activity in time and space. As a result, commanders concepts of operation must arrange subordinate units missions "...to produce maximum relative combat power at the decisive point [and time]."[13]

To summarize, subordinates must understand their mission in the context of their superior's concept of operation. Furthermore, this understanding establishes parameters for subordinates to develop their own concept of operation. Likewise, subordinates' concepts assigns missions to each of

their subordinates. This concept arranges (synchronizes) their subordinates missions to generate maximum combat power. Now, as execution begins, their subordinates also act in accordance with situations as they occur.[14]

The type of initiative described here requires subordinates to understand the purpose in their mission. Therefore, subordinates who cannot recognize and understand the purpose of their mission can only demonstrate initiative by exercising grim determination in pursuit of assigned tasks.

Furthermore, a subordinates' inability to understand the purpose has potentially grave implications on the unit's morale and its confidence in the commander. J. F. C. Fuller is his book, The Foundations of the Science of War, couched the problem in these terms. "There must be a reason for each action carried out during a war, and...if we have no reason at all, which has frequently happened in war, we reduce ourselves to the position of lunatics."[15] Other authors studying various armies in various wars confirm Fuller's point. For example, Max Hastings interviewed numerous British battalion commanders who fought in the Normandy campaign in World War II. Hastings concluded "...following bloody losses and failures, many battalion commanders determined privately that they would husband the lives of their men when they were ordered into the attack, making personal judgments about an operation's value."[16] In short, not knowing the purpose of

assigned missions erodes subordinates' confidence and trust in their commander.

AirLand battle doctrine explicitly states superior "effects" of combat power at the decisive time and place wins the battle. Combat power has four elements: Leadership, Maneuver, Fire Power, and Protection.[17] This study requires an understanding of leadership as an element of combat power. The "effect" of leadership is determining when and where to generate "effects" of maneuver, fire power and protection.[18] Consequently, this study must identify requisite leader skills, knowledge, and attitudes necessary to fulfill the "effect" of leadership.

FM 22-100, Military Leadership, lists eleven principles that describe what a leader must "be, know, and do."[19] Three of these eleven principles form the nucleus of understanding leadership as an element of combat power. To summarize, leaders must: 1) be tactically proficient; 2) be an excellent communicator; and 3) have the ability to motivate subordinates.[20]

Tactical proficiency involves mastery of the "art" illustrated in Figure 4. A "master" tactician thoroughly understands principles and concepts described in FM 100-5, Operations. Furthermore, he must be able to perform the estimate to apply those principles and concepts to any given situation. Since estimates conclude with decisions, leaders must communicate their decisions in a concise and clear

manner. Nearly twenty-four hundred years ago, Sun Tzu articulated requirements for leaders as communicators this way. "If instructions are not clear and commands not explicit, it is the commander's fault."[21]

Proficient "communicators" must possess other skills in addition to being able to issue clear and concise orders. Tactical leaders responsibilities do not end with issuance of orders. Confusion and uncertainty characterize the battlefield in modern combat. The enemy situation is the principal source of uncertainty because one can never be certain of the enemy's intentions. Consequently, leaders must have the ability to recognize changes in the tactical situation. These changes may require leaders to either modify their concept or mission. Equally important, leaders receive vital information by monitoring developments and actions of subordinate, adjacent, and higher headquarters. Consequently, listening skills are an essential ingredient to being a proficient "communicator." Colonel Huba Wass de Czege in his paper, "Understanding and Developing Combat Power," concluded; "an officer might be technically and analytically proficient but unless he can issue comprehensive instructions and receive information from subordinates and superiors alike, he cannot command effectively."[22] In short, communication skills can either limit or enhance commanders' ability to generate effects of combat power.

TACTICS

ART BY WHICH LEADERS ARRANGE FORCES AND ACTIONS ON THE BATTLEFIELD IN TIME AND SPACE. THE PURPOSE IT TO TRANSLATE POTENTIAL COMBAT POSER INTO SUPERIOR "EFFECTS" OF COMBAT POWER AT THE DECISIVE TIME AND PLACE. IT INVOLVES....

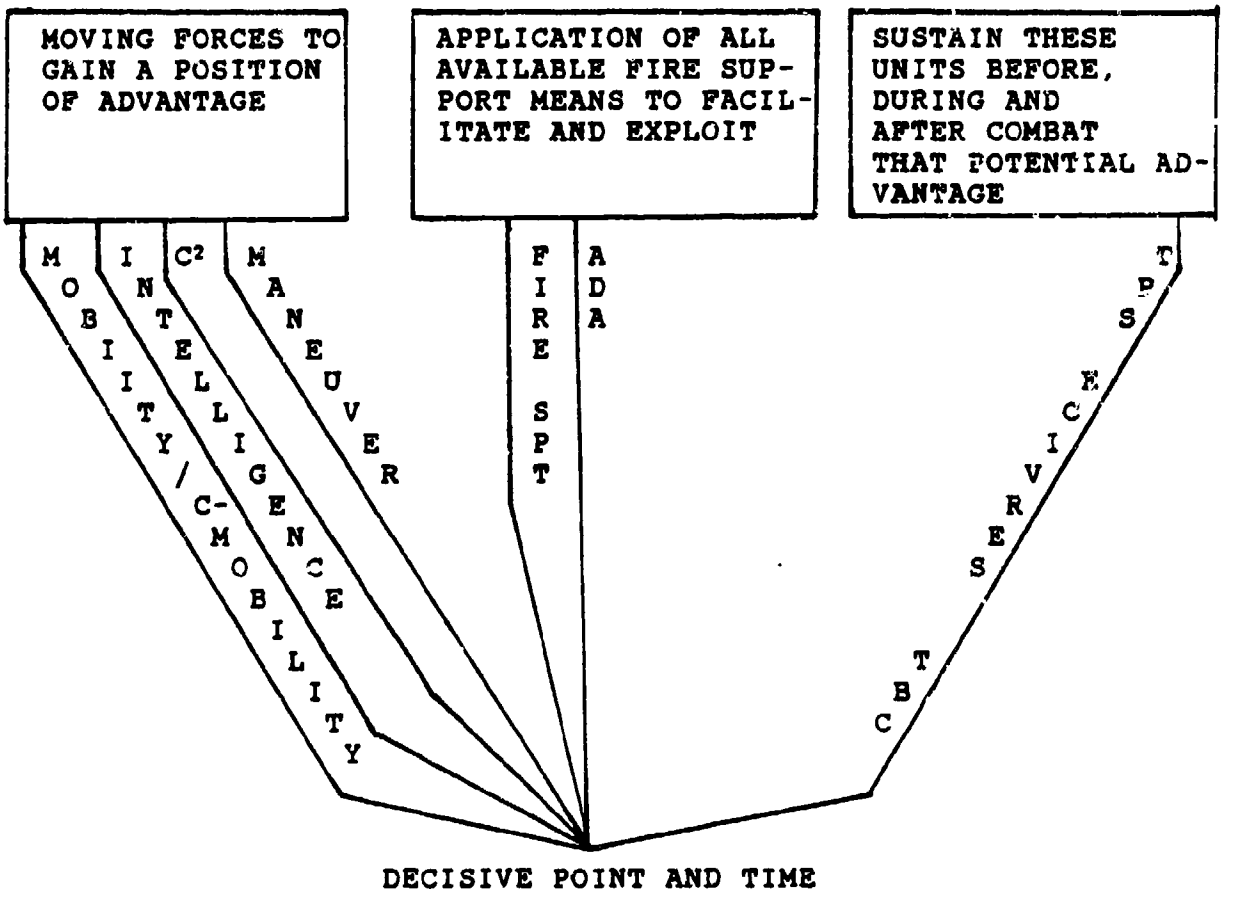


FIGURE 4
Source: FM 100-5, Operations, (1986), pp. 10-11.

Thus far, this study highlighted several principles and concepts key to addressing the research question. Substance, is "the essence, the crucial element, of what someone says or writes." Content "emphasizes the meaning or significance" of something. Mission statements are a manifestation of the Army's principle of war, objective. Tasks contain the meaning of the mission. Furthermore, tasks define when and where subordinates must accomplish those results. The purpose is the crucial element of the mission; it is what makes the mission decisive. The leader's most important responsibility is to give missions to his subordinates and arrange those missions in time and space. This arrangement ensures subordinates can easily recognize how their mission fits into their superior's concept. Furthermore, it provides subordinates a sense of responsibility and motivation to ensure success of their superior's mission. Hence, understanding certain principles of war, specific AirLand Battle tenets, and the "effect" of leadership as an element of combat power encompasses both substance and content of mission statements.

FM 101-5, Staff Organization and Operations, describes the Army's current C^2 system. The C^2 process "is the procedures and techniques used to find our what is going on, to decide what action to take, to issue instructions, and supervise execution."[23] The estimate is the key procedure in the C^2 process. Leaders use the estimate to assess the

situation, make decisions, and issue orders. Consequently, this study must examine the estimate.

Leaders use the estimate process to make decisions. The process consists of five steps. They are: mission analysis, situation and course of action, analysis of courses of action, comparison of courses of action, and finally, ends with a decision.[24] Let us begin by discussing mission analysis.

Analysis is the key word. Accordingly, analysis requires information. What information do leaders require to analyze their mission? Where can this information be found? Perhaps the following analogy will prove useful in answering these questions.

An engineer must build a "widget" with specifications of "x, y, and z." The "widget" is a sub-component of a "gadget." The "gadget" is a sub-component of the "wedge." So, the engineer studies blueprints of the "wedge" and "gadget" to gain a thorough understanding of the relationship among the "wedge," "gadget," and "widget." As a result, the engineer now grasps how the "widget" relates to the "gadget." Furthermore, the engineer appreciates how the "gadget" fits to the "wedge." Thus, he now begins to design the ""widget." Likewise, company commanders must understand how their mission fits into the battalion commander's concept. Also, company commanders must see how their battalion commander's mission fits into the brigade

commander's concept. Therefore, subordinates can find pertinent information that affects their decisions in the Friendly Forces, Mission, and Execution paragraphs of an order. [25]

The diagram at Figure 5, illustrates this point. Furthermore, this diagram highlights another key point. Commanders give subordinates their "intent." Subordinates identify "intent" during mission analysis. Equally important, mission analysis results in a re-stated mission. It is a statement of the task that must be performed and the purpose to be achieved."[26] Therefore, the subordinate's understanding of his mission establishes the parameters of his concept of operation. In short, the mission drives the remainder of the estimate.

Course of action development is a synthetic process. Leaders develop courses of action based on their understanding of the situation. Leaders combine and organize observations concerning terrain, weather, enemy, friendly forces, and available time.[27] This process concludes with a course of action. The course of action outlines an arrangement of results with a purpose -- for each subordinate -- in time and space. Furthermore, this arrangement must generate superior "effects" of combat power to accomplish the mission. Leaders develop several courses of action by repeating the process previously described.

MISSION-CONCEPT RELATIONSHIP

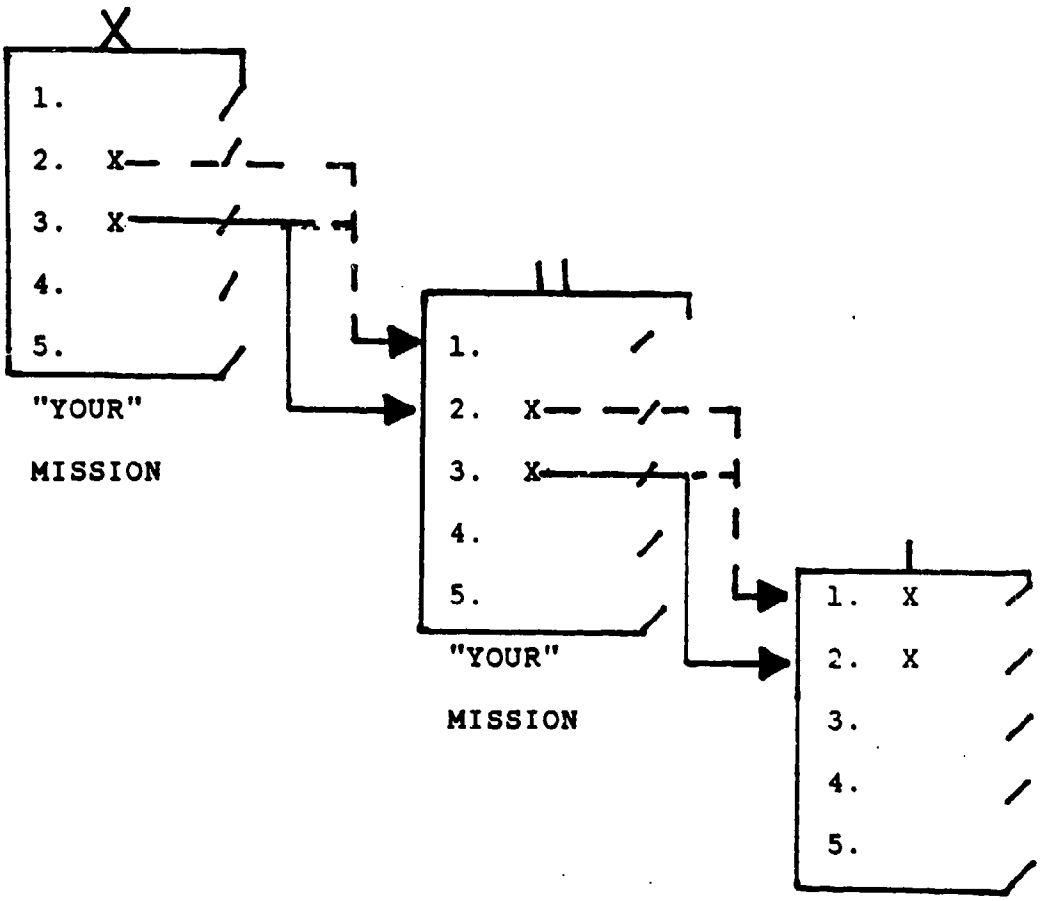


FIGURE 5

Next, each friendly course of action is analyzed against each enemy course of action through a process called "wargaming." This step is followed by a comparison of the friendly courses of action. Finally, leaders render decisions based on this comparison. Figure 6 illustrates the estimate process is an integral part of troop leading procedures.[28] Moreover, in addition to its continuous nature, the estimate impacts on construction of missions statements given to subordinates even after execution begins.[29]

To conclude, the estimate allows subordinates to exercise judgment in applying doctrine. In addition, the estimate concludes with leaders making decisions. Furthermore, leaders use language as the medium to articulate his concept of operation. Next, this study will examine the Army's tactical lexicon.

Language is "the use of audio and visual symbols to form, express, and communicate thoughts and feelings. Moreover, language is "any medium used to communicate ideas." Leaders must articulate their"concept," after reaching a decision. Accordingly, leaders need a specific vocabulary of terms to describe precise results relative to the enemy, terrain, and friendly forces. In sum, FM 101-5-1, Operational Terms and Symbols, represents the tactician's primary dictionary.

THE ESTIMATE IN ACTION

SOURCE: USAIS. "Comments on Skills, Knowledge, and Attitudes for Officers--DECISION PAPER. "Enclosure 4, Leader Critical Tasks. This illustration depicted the standard for the leader critical task of "conduct tactical operations."

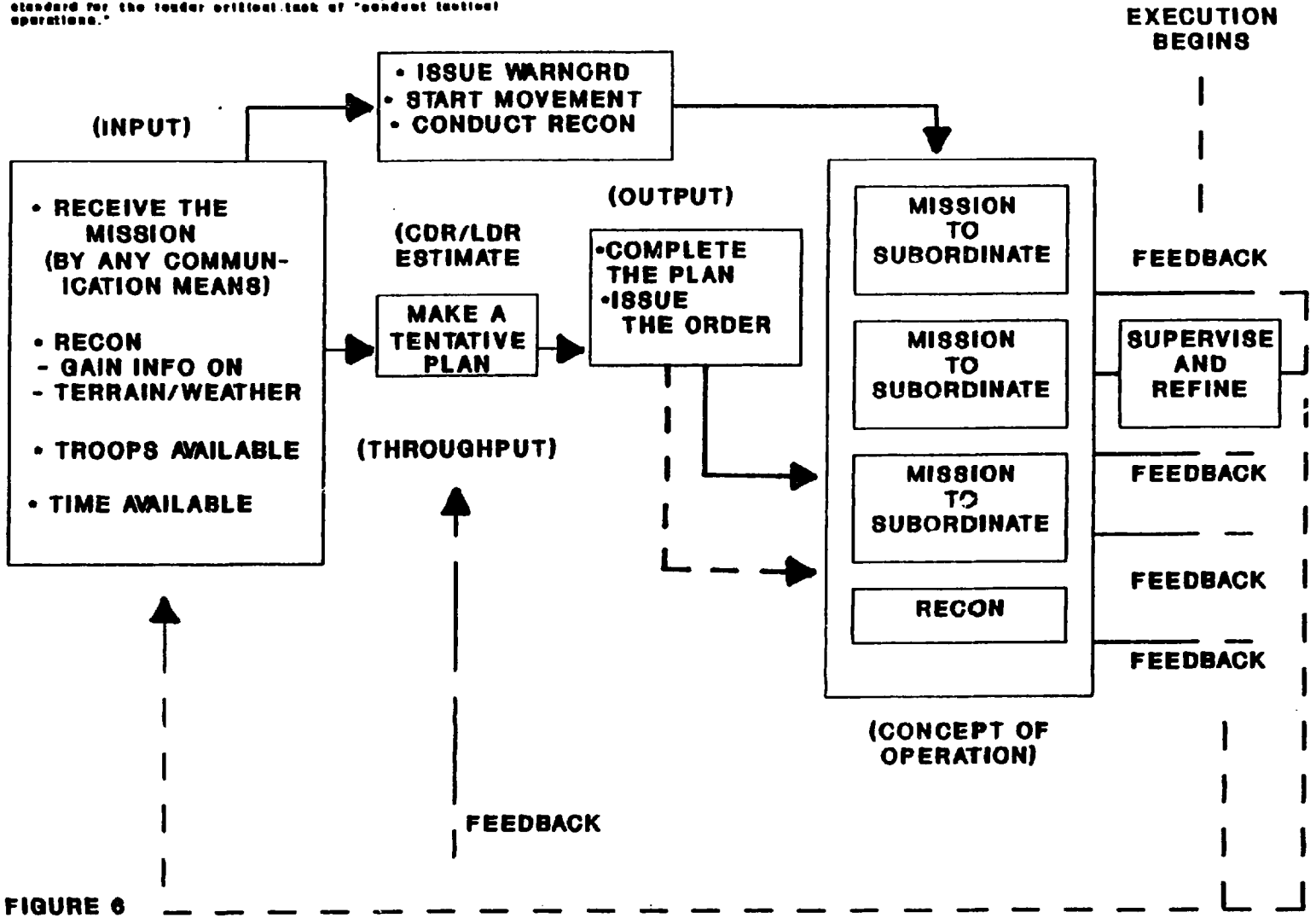


FIGURE 6
8L1

Furthermore, the deliberate arrangement of these symbols (terms and graphics) must reflect tactical concepts contained in FM 100-5, Operations. Specifically, this arrangement must describe how to generate effects of combat power. FM 101-5-1 contains terms and symbols the Army has provided for leaders to express their "concept" (idea). Consequently, this study must assess whether FM 101-5-1 meets leaders' needs with regard to construction of mission statements used throughout orders.

The review and analysis of FM 101-5-1, Operational Terms and Symbols, reveals there are thirty "tactical" tasks. These tasks are listed at Appendix 1.[30] However, this review uncovered several problem areas. First, several terms in the current FM 101-5-1 lack precise definition. For example, definitions of block, contain, and fix are similar. Each term focuses a subordinate's attention on enemy forces. Furthermore, commanders tasking subordinates to either block, contain, or fix an enemy force may use terrain, time or both terrain and time to further clarify the task. However, these terms are different. Each term expresses a distinct degree of freedom of action enemy forces can achieve. Therefore, these terms are not synonymous. Nevertheless, FM 101-5-1 uses the phrase (see also...) after each of these terms. Consequently, these terms may confuse readers. In fact, readers may conclude it does not matter. Finally, only three of the tasks (feint,

follow and support, and screen) have an associated graphical symbol. So, the Army's current tactical dictionary does not provide commanders adequate means to graphically portray tasks.

One interesting group of terms are "typical defensive missions" listed on Page 1-23 in FM 101-5-1. My initial examination revealed defend in sector, defend a battle position, and defend a strongpoint are a type of operation combined with graphical control measures. Sectors, battle positions, and strongpoints by themselves are graphical symbols used to designate areas of operation for subordinates. Do these terms satisfy the definition of mission?

A mission is a task and its purpose. A task specifies results for subordinates in terms of enemy, terrain, and friendly forces. So, the first step is to determine if there terms contain tasks and purposes.

Defend in sector "requires a unit to prevent enemy forces from passing beyond the rear boundary of the sector."[31] I interpret the specific result relative to enemy forces required by this term is prevent enemy movement in the direction of a unit's rear boundary. In short, the task is block. However, this term does not include a stated purpose. So, I conclude defend in sector is not a mission; it is an attempt to assign a graphical symbol to represent the task block.

Likewise, I interpreted defend a battle position to specify a particular result relative to the enemy. Defend a battle position "places a unit in a position to concentrate its fires...or to place it in an advantageous position to counterattack."[32] I interpret the unique result relative to the enemy required by this term is destroy enemy forces. As the case with defend in sector, defend a battle position does not include a stated purpose. Consequently, defend a battle position is not a mission either; it is a graphical symbol assigned for the task of destroy.

On the other hand, defend a strongpoint explicitly directs subordinates to achieve a particular result relative to terrain. Defend a strongpoint "implies retention of the position at all costs."[33] Similarly, defend a strongpoint does not include a stated purpose. Therefore, defend a strongpoint is not a mission; it is a graphical symbol for the task of retain.

To summarize, these terms satisfy requirements of a task. Each term specifies a specific result relative to either enemy or terrain. However, these terms do not satisfy requirements of a mission. They do not include a stated purpose.

I draw several other conclusions from my analysis and interpretation. Commanders can assign many different tasks relative to enemy and terrain in defensive operations. However, these terms imply only three tasks. Subordinates

must infer the correct task. For example, suppose a commander wants one subordinate to canalize enemy movement in a given directions, another to contain enemy forces in a given area, and a third to fix enemy forces in a different location; but, the commander tells each subordinate to "defend in sector." Now suppose each subordinate infers his task is to block enemy movement through their designated areas of operation. The result? The commander's concept begins to unravel. On the whole, defend in sector, defend a battle position, and defend a strongpoint only outline areas of operation for subordinates.

Two conclusions can be drawn from these observations. With noted exceptions, these tasks possess the necessary degree of precision to implement mission orders. Leaders using these terms can give subordinates clear results. Moreover, these terms assist commanders to describe how they plan to generate effects of combat power. Furthermore, these terms do not tell a subordinate how to do it. Finally, leaders must rely on verbal or written text mediums to transmit their concepts. On the whole, FM 101-5-1 contains required tools for leaders to construct mission statements.

Similarly, JCS Pub 1, Department of Defense Dictionary of Military and Associated Terms, is another possible reference for terms in mission statements. In fact, JCS Pub 1 includes sixteen of thirty terms listed at

Appendix 1. Like FM 101-5-1, these terms in JCS Pub 1 do not have an associated graphical symbol.

However, the Army owns a healthy training vocabulary. ARTEP 71-2-MTP, The Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force, represents another possible source of terms to construct mission statements. The various operation outlines found in the MTP provide a listing of major training tasks.[34] Equally important, these operation outlines establish a hierarchy of training terms. For instance, each major type of operation forms a broad category. Each type of operation is further sub-divided with headings of battle operating systems (BOS). Depending on the type of operation, each BOS lists numerous sub-tasks. These tasks are either procedures or tactical techniques. These terms, for example, "operate main command post" or "perform passage of lines," prescribe "how to do" a specific task. However, these terms do not articulate results relative to the enemy, terrain, and friendly forces. To summarize, these terms do not help leaders described how to generate effects of combat power.

Summary, Conclusions and Hypothesis

Thus far, this study examined and analyzed several major doctrinal publications. This analysis identified specific standards for substance, content, and construction of mission statements used throughout orders. The principles of war (Objective, Economy of Force, and Unity of

Command), AirLand Battle tenets (initiative, agility, and synchronization), and effect of leadership as an element of combat power embody the substance of mission statements. FM 101-5, Staff Organization and Operations, prescribes content of mission statements as "the task to be accomplished and the purpose tc be achieved." FM 101-5-1, contains the primary tools needed to construct mission statements.

Initiative, as described in FM 100-5, depends on the subordinates' ability to understand their mission from commanders' perspective. Furthermore, the subordinate identifies the unique contribution only his unit makes to his superior's concept of operation through mission analysis. This unique contribution is the purpose. Truly, understanding the purpose of the mission is the mainspring of initiative. Consequently, this understanding empowers subordinates -- seeing the situation as it exists -- to change the task to conform both, to current conditions and the commander's concept and mission.

The Army, for example, wants commanders like any successful football coach, and subordinates like any successful quarterback. The coach calls the plays. However, when the quarterback goes to the line of scrimmage, he "reads" the defense. If the situation is different than envisioned by the coach, quarterbacks change plays through use of "audibles." Quarterback decisions made at the line of scrimmage often result in positive yet decisive plays.

In short, the Army wants leaders capable of changing their mission and concept according to the situation as it develops.

The Army, in conclusion, wants commanders to tell subordinates only what must be done and why, but not how to do it. Consequently, commanders need have a precise language. This gives them the ability to give subordinates clear results. Although true, commanders must realize how the subordinate accomplishes those results is not their responsibility.

However, the quality of a leader's tactical "concept" depends on three things. First, leaders must comprehend principles and concepts described in FM 100-5, Operations. Likewise, leaders must possess the ability to apply those principles and concepts using the estimate. Finally, leaders must have communication skills necessary to describe, and thus, share their "concept" with their subordinates. Furthermore, this description highlights significant conclusions that form the basis of the "concept." In doing so, leaders help subordinates understand their unique part in the "concept."

FM 101-5-1 contains tactical terms leaders use to describe in his "concept" how the unit is going to generate effects of combat power. These terms describe precise results relative to the enemy, terrain, and the friendly force. Use of these terms to construct mission statements

positively affects the Army's ability to execute its current C^2 doctrine.

On the other hand, ARTEP 71-2 MTP contains the Tank and Mechanized unit training lexicon. Although FM 101-5-1 defines many of these terms, types of operations, tactical techniques, graphical control measures, and procedures describe "how to do." In addition, many of these techniques and procedures are doctrinally inherent in accomplishment of an assigned mission and, therefore, not essential tasks![35] Therefore, by definition these terms could not appear in a mission statement.

Equally important, they do not focus on results relative to the enemy, terrain, and friendly forces. Moreover, these terms do not help the leader in describing how he intends to generate effects of combat power. Therefore, use of training terms to construct mission statements adversely affects the Army's ability to execute mission orders.

Hypothesis

This study proposes the following hypothesis: There is no correlation between instruction on mission statements taught at the service schools (USAIS and USAARMS) and the Army's implementation of mission orders. The null hypothesis form allows the use of scientific methods to test the stated hypothesis. The next chapter presents the methodology to measure use of tactical tasks and training

terms to construct mission statements at both branch schools.

END NOTES FOR CHAPTER 3

1. FM 100-5, Operations (1986) p. 179.

2. J. F. C. Fuller, The Foundations of the Science of War, (London, Great Britain: Hutchinson and Company, LTD, 1926), pp. 86-101 and pp. 194-207. The Army's current principles of war were derived from those adopted by the British Army in the 1920's. The British Army's principles of war were codified by MG J. F. C. Fuller. In this book, Fuller lays out his complete reasoning process from which he drew conclusions that formed the basis of those principles. These selected passages in which Fuller discusses his command philosophy (centralization of "will") and the importance "the law of economy of force" formed the basis of my discussion as to the relationship between mission statements and the selected principles of war. Furthermore, although parts of this book are awkward, the reader can see the beginnings of our Army's present day description of "combat power" and the "effect" of leadership.

3. FM 100-5, Operations (1986) p. 174.

4. FM 100-5, Operations (1986) p. 21.

5. FM 100-5, Operations (1986) p. 21.

6. FM 100-5, Operations (1986) p. 15.

7. FM 100-5, Operations (1986) p. 173.

8. FM 100-5, Operations (1986) p. 15.

9. Paul E. Melody, "Analysis of Commander's Intent and Mission Orders, (Talking Paper written while an instructor at the USAIS. In possession of author.), p. 4-5.

10. FM 100-5, Operations (1986) p. 15.

11. FM 100-5, Operations (1986) p. 16.

12. FM 100-5, Operations (1986) p. 17.

13. FM 100-5, Operations (1986) p. 17.

14. J. F. C. Fuller, Armored Warfare, (London, Great Britain: Wyer, Spottswoods Ltd., November 1943), p. 51.

15. J. F. C. Fuller, The Foundations of the Science of War, p. 94.

16. Max Hastings, Overlord: D-Day and the Battle for Normandy, (New York: Simon and Schuster, Inc. 1985), p. 137.

17. FM 100-5, Operations (1986) p. 11-14.

18. FM 100-5, Operations (1986) p. 16.

19. FM 22-100, Military Leadership, (Washington, D.C.: Headquarters, Department of the Army, 1983), p. 41.

20. FM 22-100, Military Leadership, (1983), p. 42-43.

21. Sun Tzu, The Art of War, (New York: Oxford University Press, 1961), p. 58.

22. Huba Wass de Czege, "Understanding and Developing Combat Power," (Unpublished paper written while a student at the U.S. Army War College. In possession of author.), p. 32.

23. FM 101-5, Staff Organization and Operations, (1984), pp. E-2 thru E-8.

24. FM 101-5, Staff Organization and Operations, (1984), p. 5-8.

25. FM 101-5, Staff Organization and Procedure, (1950), p. 77.

26. FM 101-5, Staff Organization and Operations, (1984), p. 5-8.

27. John C. Condon Jr. Semantics and Communication, p. 20.

28. FM 71-2, The Tank and Mechanized Infantry Battalion Task Force, (Washington, D.C.: Headquarters, Department of the Army, 1988), pp. 2-19 thru 2-22.

29. William H. Witt, "Information Engineering," (Carlisle Barracks: U.S. Army War College, 1982). I learned about this model from COL D. M. Malone's article "X=H." COL Malone described the Army as a system of matter-energy that is organized by information. COL Malone further described the "system" as four processes measured against some established performance standard. This model coupled with Professor Berlo's S-M-C-R Model helped immensely to understand communication theory and processes.

30. Paul E. Melody, Enclosure I (Supplement of FM 101-5-1) "Analysis of Commander's Intent and Mission Orders," (Unpublished Talking Paper, 1 February 1987), pp. 1-4.

31. FM 101-5-1, Operational Terms and Symbols, (Washington, D.C.: Headquarters, Department of the Army, 1985), p. 1-23.

32. FM 101-5-1, Operational Terms and Symbols, (1985), p. 1-23.

33. FM 101-5-1, Operational Terms and Symbols, (1985), p. 1-23.

34. ARTEP 71-2 MTP, The Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force, (Washington, D.C.: Headquarters, Department of the Army, 1988), pp. 3-10 thru 3-14.

35. FM 101-5, Staff Organization and Operations, (1984), p. 5-8.

CHAPTER 4

METHODOLOGY

Introduction

The USAIS and USAARMS have responsibility to teach communication behaviors that support mission orders. This chapter describes specific methods and techniques used to assess current communication behaviors taught in tactical instruction at these schools, and to determine if they are compatible with the Army's current C^2 doctrine. The USAIS and USAARMS teach tactics through application of the estimate in different scenarios.[1] Consequently, this methodology must analyze those orders used to portray scenarios in detail. Therefore, this study uses content analysis techniques to examine orders used in tactical instruction at these branch schools.

The purpose of communication is to elicit a specific behavior from the listener. The diagram at Figure 7 illustrates the nature of content analysis. This technique involves individuals to observe different communication situations. Observers then analyze those observations and makes limited inferences about particular communication situations under study.[2] However, Figure 7 depicts only execution and conclusion phases of a content analysis study.

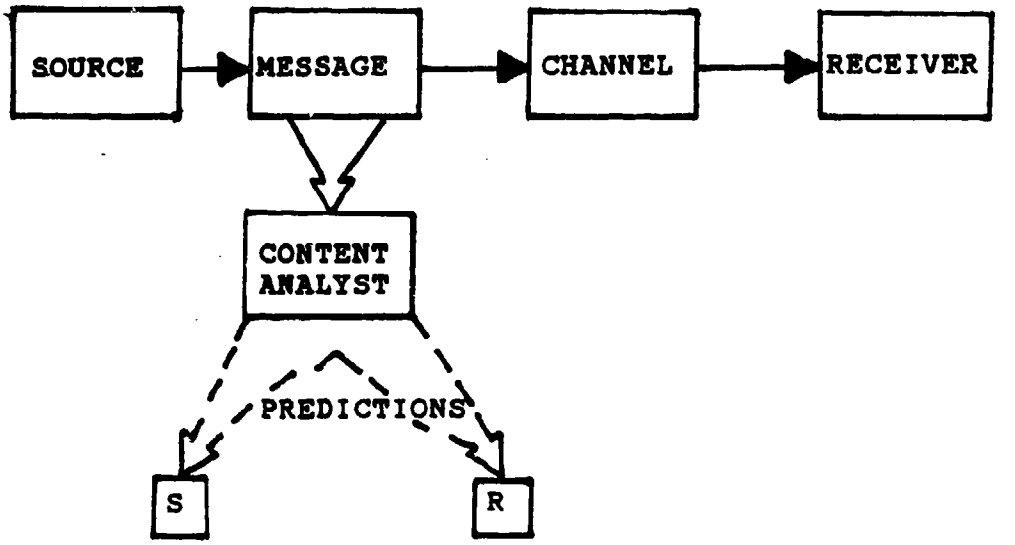
This chapter describes the method developed to verify or refute the following hypothesis: There is no correlation between instruction on mission statements taught at the USAIS and USAARMS. Furthermore, this instruction has no correlation to the Army's implementation of mission orders.

This particular method involves four steps. First, select a sample. Next, develop and define necessary categories required to organize observations of orders in the sample. Third, describe scaling procedures used based on the defined categories. Finally, develop a plan to code the contents of the sample.[3] Chapter 5 interprets and analyzes data generated from this method.

The Population

The content analyst must find an acceptable sample. The population of orders used in tactical instruction in TRADOC schools is rather large. Therefore, the first task involved limiting the population by identifying specific TRADOC schools.

This study looked at the Mission Area Analysis (MAA) process as part of the Concept Based Requirements System (CBRS) as the first limiting criterion. Under MAA each branch school is responsible for specific battlefield functions. "Close Combat" (CC) is one of those specific battlefield functions. The USAIS and USAARMS were two



CODE: S, SOURCE; R, RECEIVER

THE CONTENT ANALYST

SOURCE: CONTENT ANALYSIS OF COMMUNICATIONS, 1967, p. 3.

FIGURE 7

schools primarily concerned with CC. The USAIS has responsibility for close combat-light (CCL). The USAARMS has responsibility for close combat-heavy (CCH). Consequently, this process narrowed the population of TRADOC schools to the USAIS and USAARMS.

Since both schools have proponency for brigade level and below instruction, the next step concerned identifying leader courses overlaping in tactical subject matter. Two courses, Pre-Command Course (PCC) and Officer Advance Courses (OAC), met this criterion. FM 100-5, Operations, drove selection of which course would provide orders for the sample. "He must know the intention [concept] of the commander two levels above him, understand the concept of operation of his immediate commander, ..."[4] This passage drove selection of OAC.

Also, this process limited selection of the sample population on a specific level of instruction. First, Paragraph 1b, Friendly Forces, contains brigade commanders' missions and concepts. Paragraph 2 contains task force missions. Paragraph 3b(1), maneuver, contains details of task force commanders' concepts. So, OAC provided a unique opportunity to analyze brigade missions and concepts of operation, and battalion missions and concepts of operation. Equally important, these branch schools teach thought process and communication behaviors to future company commanders. These future company commanders, in

turn, teach those same resources and behaviors to platoon leaders. Therefore, orders used in company/team (CO/TM) level instruction in OAC at these branch schools constituted the sample.

An examination of company/team instruction at both the USAIS and USAARMS restricted the sample population to two types of operations. Each school teaches two offensive and two defensive practical exercises/tactical exercises without troops. Therefore, a total of eight orders represented the sample population. In sum, this sample represents "common ground" between these branch schools.

Measurement

This study must measure if CO/TM instruction at the USAIS and USAARMS teaches students to expect their commanders to tell them only what to do and why to do it. Furthermore, their commanders do not prescribe how to do it. Next, this discussion describes development of categories used for this analysis.

According to Budd, Thorpe, and Donohew in Content Analysis of Communications "categories must accurately fit the needs of the study so that they answer the question originally asked, be exhaustive (relative to the problem), and be mutually exclusive."[5] Although directional type categories potentially impede objectivity, these type categories illustrate tendencies expressed towards any group of symbols by users.[6] This study measures use of

distinct groups of symbols used to construct mission statements. Hence, it dovetailed with directional categories. Specifically, this study modified expanded directional analysis used by Kaplan and Goldsen in their study of wartime communications.[7]

Categories

The Army's current major doctrinal manuals served as sources for definitions of each category listed below. Previous chapters establish "completeness and logic"[8] of these definitions. These categories represent a type of ordinal scale. Consequently, they are nothing more than a ranking of characteristics consistent with the Army's doctrine.[9] To summarize, this study uses five categories:

A. Unqualified favorable (++): This study assigned mission statements that had a tactical task to be accomplished and a purpose to be achieved to this category.

B. Favorable (+): This study assigned mission statements that had a tactical task to be accomplished, but not purpose to this category.

C. No direction (0): This study assigned mission statements that had no tasks, but types of operations to this category.

D. Unfavorable (-): This study assigned mission statements that had a tactical task, no purpose, but also contain control measures, tactical

techniques and procedures to this category.

E. Unqualified unfavorable (--): This study assigned mission statements that had no tactical task, no purpose, but only contains control measures, tactical techniques, and procedures to this category.

Next, this study needed to select coding units to generate data for analysis of trends among orders in the sample. This method used two different coding units. Every operation order consists of five paragraphs. Mission statements are found in situation, mission, and execution paragraphs. Paragraph 16, Friendly Forces, containing brigade commanders' missions and concepts of operations. Paragraph 2, Mission, contains battalion/task force commanders' mission. Equally important, task force commanders assign their CO/TMs missions in Paragraph 3b(1), Maneuver. Hence, these paragraphs served as a coding unit.

The second coding unit is a sub-set of the paragraph. Tactical and training terms represent word code units (see Figure 8). Tactical tasks have been further sub-divided into enemy, terrain, and friendly force groups. Each grouping places terms focusing results on particular materials of war together.[10]

Likewise, developing a coding scheme is based on these units of measurement. Figure 9 depicts particular schemes

used in this study. This coding scheme facilitated recording data and verifying recorded data.

Coding Procedures

I provided each coder with an instruction packet and a folder containing a copy of every order in the sample and separate data forms (Figure 10) for each paragraph of each order. The instruction packet containing defined directional categories (pp. 85-86), work code units (Figure 8), and coding scheme (Figure 9). Next, each coder coded designated paragraphs of every order according to the scheme outline at Figure 10. Also, coders recorded data on forms like those at Figure 10. Finally, all coders turned in completed packets to me.

WORD CODE UNITS

A. Purpose

In order to...

prevent	open	draw
allow	divert	envelop
create	enable	surprise

B. Tactical Tasks

Enemy	Terrain	Friendly Force
assault	clear	follow and support
block	retain	displace
bypass	secure	guard
canalize	seize	exfiltrate
contain	recon	infiltrate
demonstrate		occupy
destroy		overwatch
exploit		screen
feint		breach
fix		
interdict		
neutralize		
pursue		
penetrate		
suppress		
support by fire		
recon		

C. Types of Operation

attack	counter-attack	defend
move to contact	retrograde	mobility
counter-mobility	survivability	

D. Control Measures/Techniques/Procedures

strong point	battle position	sector
battle handover	passage of lines	passage point

FIGURE 8

CODING SCHEME

WORD CODE UNIT	CODE	EXAMPLE
* Purpose	Outline in a green box	...in order to prevent...
* Tasks		
-Enemy	Outline in an orange box	...destroy...
-Friendly	Outline in a blue box	...screen...
-Terrain	Outline in a purple box	...seize...
* Types of operation	Highlight in yellow	attack
* Control measures/tactical techniques or procedures	Outline in a red box	. .conduct battle hand-over...

FIGURE 9

CODER DATA SHEET

FIGURE 10

PARAGRAPH ____ SCHOOL ___ ORDER NO. ____ TYPE OF OPERATION___

DIRECTIONAL CATEGORY / UNIT	UNQUALIFIED FAVORABLE (1)	FAVORABLE (2)	NEUTRAL (3)	NEGATIVE (4)	UNQUALIFIED NEGATIVE (5)
	PURPOSE & TASK	TASK	TYPE OF OPN	TASK & TECHNIQUE/ PROCEDURE	CONTROL MEASURE TECHNIQUE/PROCEDURE ONLY

OL3

Next, I assigned a score to each paragraph of each order. This score depicts a ratio of favorable and unfavorable content concerning use of either tactical tasks or training terms.[11] This ratio is called the "Coefficient of Imbalance."[12]

I derived statistical equations required to calculate the coefficient from formulas developed by Janis and Fadner.[13] Specific formulas used in this study are as follows:[14]

$$(Uf+f) > (UN+N)$$

$$Cf = \frac{(Uf+f)^2-(Uf+f)\ (UN+N)}{rt}$$

$$(UN+N) > (Uf+f)$$

$$Cu = \frac{(Uf+f)\ (UN+N) - UUN+N)^2}{rt}$$

WHERE Uf = Unequivocal Favorable Units of Content
f = Favorable Units of Content
UN = Unequivocal Negative Units of Content
N = Negative Units of Content
t = Number of Units of Total Content
r = Total Units of Relevant Content

NOTE THAT:
r = Unequivocal Favorable + Favorable + Unequivocal Negative + Negative Units of Content
t = Unequivocal Favorable + Favorable + Unequivocal Negative + Negative + Units of Content

Procedures described for coding and recording data provide several noteworthy advantages. First, I can

analyze data using extended directional categories defined earlier, in any number of ways. Data can be analyzed horizontally by each paragraph across one or both types of operations for each school using the matrix illustrated at Figures 11 and 12. For example, I could analyze Paragraph 1bs to ascertain trends in brigade mission statements and concepts of operation. Also, these matrices allow examination of data vertically. For instance, I could study all paragraphs of any particular order to gain insights as to any trends among Paragraphs 1b - Friendly Forces, Paragraph 2 - Mission, and Paragraph 3 - Execution. I could repeat this process for any particular paragraph, order, or type of operation of either school.

Another benefit is use of tactical terms, types of operation, tactical techniques and procedures as coding sub-units. Accordingly, I can draw limited conclusions as to each branch's perceived role in the Army's combined arms concept based on use or disuse of certain terms. In short, I could extract data to show trends both in frequency and variety of tasks used either horizontally or vertically at brigade and battalion levels in both schools.

Coders

I selected eight coders from available infantry and armor officers attending Command and Staff Service School (CAS^3) classes 89-3 and 89-4. Four coders were armor

IMBALANCE COEFFICIENT MATRIX

USAIS

ORDER # / PARA #	ATK	ATK	DEF	DEF
1b BDE MISSION AND CONCEPT OF OPN				
2 BN/TF MISSION				
3b(1) MANUEVER				

FIGURE 11

IMBALANCE COEFFICIENT MATRIX

USAARMS

ORDER # / PARA #	ATK	ATK	DEF	DEF
1b BDE MISSION AND CONCEPT OF OPN				
2 BN/TF MISSION				
3b(1) MANUEVER				

FIGURE 12

officers. Four coders were infantry officers. All coders previously completed OAC and company command.

All four infantry coders attended Infantry OAC after transition to Small Group Instruction (SGI). One of these coders had almost three years teaching experience as an OAC instructor at Fort Benning.

Likewise, two armor coders attended Infantry OAC. However, this was prior to transition to SGI (October, 1986). The two other armor coders attended Armor OAC before Fort Knox transitioned to SGI. However, one of these individuals was a current OAC instructor at Fort Knox with over two and one-half years teaching experience. The other armor coder was an observer-controller with two years experience at the NTC.

To summarize, this group provided insights from three different perspectives. First, this group represented tank and infantry Co/Tm commanders' viewpoints. These officers' commentary provided feedback at to what they were taught, what they actually did, and their reactions to what is currently taught. Second, selected individuals represented teaching philosophies and methods at the USAIS and USAARMS. Finally, one armor coder, as an OC, offered commentary between branch school instruction and unit training. One the whole, these coders ensured balanced representation of both branches.

Reliability

Procedures outlined here appear straight-forward and understandable. Nevertheless, studies involving content analysis require reliability checks. Reliability ensures future researchers following methods described here should basically get the same results.[15] Therefore, I must describe those procedures incorporated into the analysis design to insure reliability.

The old adage "an ounce of prevention is worth a pound of cure," certainly applied in this case. First, I conducted the test-retest method of intercoder reliability checks (IRC) for all coders.[16] I computed reliability using the formula below:

$$R = \frac{N\ (C_1, C_2, \ldots)}{C_1 + C_2 + \ldots}$$

Where N = Number of Coder

$(C_1, C_2, \ldots$ = Represents Total of Items Agreed on by All Coders

$C_1 + C_2 + \ldots$ = Sum Total of Items Coded by Each Coder

I used an order not part of the actual sample. The purpose of the exercise was to verify if instructions for coding the actual orders, definitions of directional categories, and method of recording data were uniformly understood by all coders. Consequently, I could reconcile

any problems by modifying or clarifying instructions and definitions before the actual test. Second, I conducted intercoder checks again during coding of the actual test population.

Validity

Validity is a self-interrogative process conducted by researchers to assess if information generated by selected methods answers proposed study questions.[17] Although reliability is important to establish validity, they are not synonymous. For instance, when zeroing a rifle, a tight shot group anywhere on a given target indicates reliability. On the other hand, tight shot group on the bullseye represents validity. In short, validity checks insure data gathered hits the "bullseye" by answering specific research questions.

I anchored this study's validity in the Army's current C^2 doctrine. The Army's concept of mission orders demands superiors give subordinates specific results. Subordinates are responsible to accomplish those results. Moreover, the Army currently has tactical terms that articulate precise results. Consequently, tactical terms coupled with purposes demonstrate the correct Army standard for construction of mission statements. To summarize, these and other doctrinal considerations dictated definition of directional category of coding units and procedures to code and record data.

To summarize, this methodology relies on content analysis techniques. Equally important, this method will either verify or refute the stated hypothesis. There is a favorable correlation between tactical instruction and the Army's current C^2 doctrine, the branch schools teach student to construct mission statements with tactical tasks (Appendix 1) and purposes. However, there is an unfavorable correlation between tactical instruction and the Army's C^2 doctrine. Branch schools teach students to construct mission statements with control measures, techniques or procedures.

END NOTES FOR CHAPTER 4

1. ST 100-9, A Guide to the Estimate of the Situation, (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1985), p. 1-1.

2. Richard W. Budd, Robert K. Thorpe, and Lewis Donohew, Content Analysis of Communication, (New York: The MacMillan Company, 1967), p. 2-3.

3. Budd, Et Al, Content Analysis, p. 6.

4. FM 100-5, Operations, (1986), p. 22.

5. Budd, Et Al, Content Analysis, p. 39.

6. Budd, Et Al, Content Analysis, p. 50. Budd's definition of direction in content analysis was quoted from Lasswell, Et Al.

7. Budd, Et Al, Content Analysis, p. 54. Budd cited Kaplan and Goldsen's study, Experimental Division for the Study of Wartime Communications, (Documents 40 and 41) as an example of analyst attempting to further classify content.

8. Budd Et Al, Content Analysis, p. 51.

9. Budd, Et Al, Content Analysis, p. 32.

10. Budd, Et Al, Content Analysis, p. 33.

11. Budd, Et Al, Content Analysis, p. 55.

12. Budd, Et Al, Content Analysis, p. 56.

13. Budd, Et Al, Content Analysis, p. 56.

14. Budd, Et Al, Content Analysis, p. 56.

15. Budd, Et Al, Content Analysis, p. 15.

16. Budd, Et Al, Content Analysis, p. 67.

17. Budd, Et Al, Content Analysis, p. 68-69.

CHAPTER 5

ANALYSIS

This chapter analyzes, interprets, and explains the data generated from coding the content of the selected USAIS and USAARMS orders. This first section discusses reliability and validity of the data. Next, the discussion shifts to explain the computations, relevance, and significance of imbalance coefficients listed in matrices and summaries. Finally, the discussion focuses on analyzing and explaining data gathered on use of tactical tasks in USAIS and USAARMS orders.

Reliability and Validity

This section discusses reliability and validity of the collected data for two reasons: to ensure readers are aware of my assessment of these critical concepts and alert readers to specific problem areas.

As discussed previously, I designed reliability in the study by employing proven test-retest methods for intercoder reliability checks (IRC). IRC results are listed in Table 1.

I believe this study's data is reliable. Nevertheless, this discussion highlights inherent difficulties in assessing what eight different people see. Also, this discussion includes recommendations to minimize

some of these potential problems.

I wanted an IRC correlation of .80 or higher for the actual test population. So, I conducted a practice exercise using coding units, directional categories, recording instructions described in Chapter 4 and the order at Appendix 2. I designed this practice exercise to serve two purposes: to ensure coding instructions and definitions of directional categories were understood by all coders, and problem identified problem areas could be resolved before conducting the test. This exercise used only an attack order and achieved a correlation of .90. Consequently, I felt these results verified clarity of coding instructions, definition of directional categories, and so forth.

However, all coders agreed on sixty-seven of ninety-one total items in the actual test population. The mean IRC correlation was .80 for attack orders and .69 for defensive orders. This constitutes an IRC correlation of .74.

These results do not make the data unreliable. I can explain the difference of eleven percent between mean attack and defense IRC results. During the test, one coder disagreed with seven other coders in three of four defensive orders. So, the total number of items agreed on by all coders was lower. As a result, IRC correlations were lower for defensive orders.

INTERCODER RELIABILITY CHECK (IRC) RESULTS

Practice Exercise	IRC	.90
Test Population	IRC	.74
USAIS Mean	IRC	.78
USAIS Mean Attack	IRC	.82
USAIS Mean Defense	IRC	.76
USAARMS Mean	IRC	.69
USAARMS Mean Attack	IRC	.76
USAARMS Mean Defense	IRC	.58
Individual Orders	IRC	
USAIS Attack	#1	.80
USAIS Attack	#2	.83
USAIS Defense	#1	.69
USAIS Defense	#2	.82
USAARMS Attack	#1	.79
USAARMS Attack	#2	.67
USAARMS Defense	#1	.69
USAARMS Defense	#2	.00

TABLE 1

In conclusion, future studies should administer practice exercises for each different type of operation in the test population. I should have conducted a second practice exercise using a defensive order. I believe I would have identified these individuals and clarified any problems encountered understanding or applying the instructions to defensive orders. To summarize, practice exercises should be conducted for each type of operation that is part of the test sample. I believe this precaution enhances reliability.

Next, I need to briefly address validity of the data. This study used several validity techniques. The Army's current C^2 doctrine provided the foundation to develop definitions of directional categories, selection of coding units, and so forth. Hence, I used direct validity.[1] Also, I checked validity using the jury and known group methods as well.

Professor Rick Stephens, a communications research specialist, examined critical segments of the study's methodology. Stephens believed selected coding units, as well as coding and recording procedures were satisfactory. However, Stephens recommended I use a modification of the known-group method of validity. Specifically, Stephens suggested I conduct post test interviews with all coders.[2]

These interviews fulfilled two functions. First, I needed to assess if certain attitudes of each individual coder were consistent within the whole group. Furthermore, I needed to determine if coder group attitudes were consistent with this study's defined directional categories.

Every coder acknowledged three key points. First, there is a distinct difference between a tactical task and control measures, techniques, procedures and so forth. The difference is a task focuses on what to do. Other terms focus on where or how to do. Second, each coder understood mission orders entail giving subordinates tasks and

purposes without specifying how to do it. Consequently, all coders recognized initiative, as describe in FM 100-5, is derived from understanding how their mission relates to their superiors' concept.

To summarize, this study combined direct, jury, and modified known-group methods of validity. Although, IRC correlations were not as high as I wanted, the Army's current C^2 doctrine formed the underpinnings of this study's methodology. Furthermore, I utilized insights of a recognized communication expert to assess whether coder feedback was consistent with the goals of this study. Consequently, I believe data gathered in this study is valid.

Imbalance Coefficient (IC)

This study postulates mission statements constructed using tactical tasks (Appendix 1) and purposes supports the Army's implementation of mission orders. These tactical tasks coupled with purposes used in friendly situation and mission paragraphs help subordinates understand how their superiors' mission fits into his superiors' plan. Equally important, tasks with purposes used in concepts of operation help subordinates understand how and why they fit into their superiors' plan. This understanding is the basis of initiative as described in the 1986 FM 100-5.

On the other hand, this study also theorizes mission statements constructed with types of operation, control

measures, tactical procedures and techniques does not support the Army's mission oriented C^2. Furthermore, use of these terms only specify "how to do." In short, these terms do not help subordinates understand how they fit into their superiors' concepts.

Consequently, this study relies on ICs to measure use of these two groups of symbols to construct mission statements. ICs represent ratios of favorable and unfavorable content. Therefore, ICs are a useful measurement and analytical tools.

The numbers depicted at Tables 2 and 4 reflect mean ICs. Next, I will describe exact procedures used to calculate these values. Initially, I computed ICs for every paragraph coded by each coder. Next, I derived mean ICs for each paragraph of each order by averaging each coders individual ICs. The data is recorded in Tables 2 and 4.

Furthermore, I computed mean ICs for each scho l's friendly situation, mission, and maneuver paragraphs. As a result, I determined mean ICs for each of those three paragraphs for both types of operation. Again, I repeated the same process vertically and computed mean ICs for each individual order. I tabulated these calculations in Tables 3 and 5.

Accordingly, these Tables allowed me to look for trends involving use of either tasks or control measures to

MEAN IMBALANCE COEFFICIENT

USAIS

ORDER # / PARA #	ATK 1	ATK 2	DEF 1	DEF 2
1b BDE MISSION AND CONCEPT OF OPN	1	1	.85	.46
2 BN/TF MISSION	1	1	1	1
3b(1) MANUEVER	.90	.92	.66	.30

TABLE 2

USAIS IMBALANCE COEFFICIENT (IC) SUMMARY

All Operations

Overall Mean IC	.84
Paragraph 1b FRIENDLY FORCES	.83
Paragraph 2 MISSION	1.00
Paragraph 3b(1) MANEUVER	.7

Offensive Operations

Overall IC Average	.97
Attack Order #1	.96
Attack Order #2	.97
Paragraph 1b FRIENDLY FORCES	1.00
Paragraph 2 MISSION	1.00
Paragraph 3b(1) MANEUVER	.91

Defensive Operations

Overall IC Average	.72
Attack Order #1	.84
Attack Order #2	.59
Paragraph 1b FRIENDLY FORCES	.66
Paragraph 2 MISSION	1.00
Paragraph 3b(1) MANEUVER	.49

TABLE 3

MEAN IMBALANCE COEFFICIENT

USAARMS

ORDER # / PARA #	ATK 1	ATK 2	DEF 1	DEF 2
1b BDE MISSION AND CONCEPT OF OPN	.89	NOT OBSERVED	.15	-.33
2 BN/TF MISSION	1	0	.38	0
3b(1) MANUEVER	.82	1	-.06	-.32

TABLE 4

USAARMS IMBALANCE COEFFICIENT (IC) SUMMARY

All Operations

Overall Mean IC	.34
Paragraph 1b FRIENDLY FORCES	.24
Paragraph 2 MISSION	.35
Paragraph 3b(1) MANEUVER	.37

Offensive Operations

Overall IC Average	.70
Attack Order #1	.91
Attack Order #2	.50
Paragraph 1b FRIENDLY FORCES	.89
Paragraph 2 MISSION	.50
Paragraph 3b(1) MANEUVER	.92

Defensive Operations

Overall IC Average	- .03
Attack Order #1	.16
Attack Order #2	- .22
Paragraph 1b FRIENDLY FORCES	- .09
Paragraph 2 MISSION	.19
Paragraph 3b(1) MANEUVER	.19

TABLE 5

construct mission statements. I identified two noteworthy trends. First, the USAIS mean ICs for all paragraphs of all operations is two and a half times greater than the USAARMS overall mean ICs. Second, both the USAIS and USAARMS mean ICs for defensive operations is lower than their mean IC for offensive operations. Finally, friendly forces and maneuver paragraphs of both USAIS and USAARMS defensive orders has the lowest mean ICs.

Although ICs and IRCs serve disparate functions, I looked for trends between IC scores and IRC results. IC scores indicate a ratio of favorable to unfavorable content. On the other hand, IRC results demonstrates level of agreement among coders on their assessment of coded content as favorable or unfavorable. This data is illustrated in Table 6 below.

IC AND IRC TRENDS

USAIS			USAARMS	
IC	IRC		IC	IRC
.84	.78	Overall	.34	.69
.97	.82	Offensive	.70	.76
.96	.80	Attack #1	.91	.79
.97	.83	Attack #2	.50	.67
.72	.76	Defensive	-.03	.58
.84	.69	Defensive #1	.16	.69
.59	.82	Defensive #2	-.22	.00

TABLE 6

I noticed one specific trend which required examination and explanation. With two exceptions (defensive means and defense #2), the USAIS ICs exceeded IRCs for most categories. However, with one exception (attack #1), coder agreement among the USAARMS orders was higher than ICs of those same orders.

My interpretation of these observations focused on communication behaviors taught at both schools. Fairly high IRCs coupled with even higher ICs suggests USAIS teaches communication behaviors and construction of mission statements supportive of decentralized decision-making. However, low ICs coupled with higher IRCs suggests USAARMS teaches communication behaviors not fully supportive of mission orders. Furthermore, ICs and IRCs of both branch schools' defensive orders suggests using terms like "defend in sector" or "defend a battle position" as tasks represents accepted communication behavior not consistent with decentralized C^2. In short, coders recognized defensive order content as less favorable, but more familiar. In sum, "we tend to listen more closely to songs we have heard before then to new melodies."[3]

The USAIS and USAARMS

I found an explanation for these observations in an examination of two specific areas. First, I analyzed each school's methods of tactical instruction. Specifically, I focused on how each school taught mission analysis, course of action development, and relationships between mission and courses of action. Let us begin the discussion with the USAARMS.

The general structure and method of OAC tactical instruction at the USAARMS supports implementation of mission orders. Captain Stu Whitehead, a current

instructor, described OAC tactical instruction in the USAARMS. Whitehead stated tactical instruction begins with students acting as members of brigade staffs. Using offensive operations, this instruction teaches students the estimate, troop leading, and staff organization and procedures. Next, instruction moves to task force offensive operations. Tactical situations are based upon student generated brigade orders. In other words, students using brigade orders they just developed, act as task force staffs to develop battalion/task force orders. Again, this process is repeated for company/team instruction.[4]

Tactical instruction organized like this provides several significant advantages. First, this instruction helps students recognize the importance of understanding how their mission fits into their superiors' concept. Also, this instruction helps students understand how their superiors' missions fit into their superiors' plans. Furthermore, this type of instruction forces students to appreciate problems caused when superiors assign ambiguous, poorly defined and unattainable tasks to subordinates. On the whole, this instruction stresses the importance of understanding the "intent of the higher commander and the commander two levels up."[5] Therefore, the structure and method of the USAARMS OAC tactical instruction supports the Army's C^2 doctrine.

Likewise, the USAARMS instruction on mission analysis follows the method described in the 1984 FM 101-5. The USAARMS instructors teach mission analysis as outlined in the CGSC Student Text 100-9, The Command Estimate. As such, the mission states "WHO, WHAT, WHEN, WHERE and WHY of an operation."[6]

During the same interview, Whitehead demonstrated how the USAARMS teaches mission analysis and articulation of restated missions in OAC. He concluded his demonstration with an example of a restated mission. "Co[mpany] B defend BP 52 vic __location__ at ___(DTG)___; in order to destroy the 1st echelon of the 121st MRR."[7] I asked Whitehead to identify the what (task) and the why (purpose). Whitehead identified the what as "defend BP 52" and the why as "destroy the 1st echelon of the 121st MRR."[8] Accordingly, I concluded the USAARMS teaches OAC students to construct missions using types of operations and control measures as tasks. Furthermore, the USAARMS used tactical tasks as purposes in mission statements.

My analysis of the USAIS OAC instruction revealed many similarities with the USAARMS OAC instruction. Like the USAARMS, the Infantry School uses various tactical situations to teach the estimate, troop leading, and staff organization and procedures. Furthermore, the USAIS stresses identical substance and content of mission statements discussed earlier.

Also, my analysis revealed several noteworthy differences. The structure and method of the USAIS OAC tactical instruction starts at company level, progresses thru battalion, and culminates with brigade level operations. This approach is not the most effective method to demonstrate to students how their mission fits into their superiors' concepts. Consequently, the USAIS compensates by developing scenarios to allow instructors to stress this aspect during mission analysis of each practical exercise.

Mission analysis, as taught in IOAC, is depicted at Figure 13.[9] Notice this method is a self-interrogative process. The first two questions force students to identify a tactical task as their mission essential task. Types of operation, control measures and so forth, do not specify results. Consequently, students must identify a tactical task. Furthermore, this method precludes a task being identified as the purpose or the why of the mission. This forces the student to analyze closely his superior's mission and concept. In sum, students must recognize the unique contribution only their mission makes to the superiors' concepts. Equally important, students by answering remaining questions begin to outline parameters of their own concept. Accordingly, the USAIS teaches OAC students substance, content, and construction of mission statements totally consistent with mission orders.

To summarize, both schools teach identical mission statement content. However, they differ on instruction concerning construction of mission statements. Unlike the USAARMS, the USAIS emphasizes using tactical tasks as the "what" of the mission. Furthermore, USAIS instructors ensure students state the purpose of each task given to each subordinate. In short, significant differences lie in how these branch schools teach mission analysis.

USAIS MISSION ANALYSIS

A. What task was I given? What specific results must I attain in terms of enemy, terrain and/or friendly forces?

B. Why was I given this task? (This will identify you commander's intent (purpose) for you.

C. What constraints have been placed on my freedom of action?

D. How does this task relate to the main effort?

E. If these are constraints, ask why has my superior limited my possible courses of action? (Relate it back to main effort)

Source: Student Handout, Tactics Division Combined Arms Tactics Department, USAIS

FIGURE 13

Moreover, my analysis of instruction methods revealed the USAIS and USAARMS do not teach step two of the

estimate, situation, and courses of action, in the same manner. Although the USAARMS stresses analysis of terrain and enemy, the USAIS underscores clever and intelligent use of terrain and weather is essential to mission accomplishment. The USAIS teaches students to assess the terrain, weather, and enemy using questions listed in Figure 14.[10]

This method does not mention the acronym OCOKA. Nevertheless, my analysis revealed the USAIS wanted students also to evaluate the terrain and weather in terms of combat power. For instance, the first question on Figure 14 helps students identify obstacles to mounted and dismounted movement. Next, once students locate obstacles, they begin to make deductions concerning types and sizes of organizations capable of moving through or along given areas. Consequently, students begin to recognize the potential of either friendly or enemy force to generate effects of maneuver.

Likewise, terrain question 4 focuses students' attention on observation and fields of fire. Moreover, students begin to assess the potential of terrain and weather offer either combatant to produce effects of firepower and protection. As a result, students begin to generate effects of leadership by deciding where and when their forces can maximize effects of maneuver, firepower, and protection relative to the enemy.

USAIS SITUATION ANALYSIS

Terrain and Weather

1. How does the terrain/weather affect enemy/friendly movement? Why?
2. What terrain is important to the enemy/friendly forces? Why?
3. What are enemy/friendly forces approaches to the important terrain? Why?
4. How does the terrain/weather affect enemy/friendly direct/indirect fires? Why?

Enemy

1. What is the enemy's location/disposition? Known? Suspected?
2. What is the enemy's strength? Composition?
3. Does your commander have any assumption about the enemy? What are they?
4. What are the enemy's capabilities? Courses of action?
5. Where and when do you perceive enemy vulnerabilities? Why?

FIGURE 14

To sum up, these questions emphasize the impact of terrain and weather on effective use of combat power.

First, terrain and weather are neutral. The environment affects both enemy and friendly forces. Furthermore, leaders must understand the impact of terrain and weather in any given situation in order to gain an advantage over their enemy. Equally important, these questions force students to remain unbiased while assessing the situation. Therefore, the USAIS stresses students recognize the potential of terrain and weather to help accomplish one thing: maximize their forces ability to generate effects of maneuver, firepower, and protection; simultaneously, minimize friendly force potential vulnerabilities.

Equally important, the USAIS teaches students to develop courses of action based on conclusions drawn from their assessment of the situation. Figure 15 describes major elements of a completed course of action.[11] Furthermore, Figure 16 outlines the USAIS procedure to develop a course of action.[12] On the other hand, the USAARMS teaches course of action development and articulation using Appendix E, FM 101-5 and CGSC Student Test 100-9.[13]

So, I analyzed and compared Figures 15 and 16 with descriptions of courses of action outlined in Appendix E, FM 101-5 and CGSC Student Test 100-9, The Command Estimate. My analysis revealed two noteworthy differences. First, the USAIS course of action dictates the what must be a task. However, FM 101-5 and ST 100-9 state the

USAIS COURSE OF ACTION

What - Task(s)

When - Time action begins or ends. (Limitation of time.)

Where - Assigned area of operation. (Limitation of space.)

How - Identification of main effort and subordinate elements task(s) and purpose.

Why - The purpose of the operation.

Source: SH 7-5, Operations Handbook (draft) 1987

FIGURE 15

USAIS PROCEDURE FOR DEVELOPING A COURSE OF ACTION

A. Determine decisive point(s) and time(s)...these are the point(s) and time(s) that will further accomplishment of the task(s) and purpose (mission) assigned by the superior commander.

B. Identify the purpose to be achieved by the main effort and supporting efforts.

C. Determine the essential tasks of subordinate units.

D. Assign subordinate headquarters assets to enable them to achieve their specific purpose.

E. Freedom of action and control measures.

F. Prepare course of action sketch and statement.

Source: SH 7-5, Operations Handbook (Draft) 1987

FIGURE 16

what is the type of action (e.g. attack or defend). Second, the how of the USAIS course of action commanders include a task and purpose for each subordinate and designate their main effort. Although ST 100-9 emphasizes identification of the main effort, this document describes the how as "the use of available assets addressing elements of the battlefield in broad terms."[14]

I concluded the USAARMS teaches the what, when, where, and why of the course of action becomes the what, when, where, and why of the mission. The what is a type of action and why is a task. Furthermore, the how of the course of action becomes the concept of operation which is stated in broad terms. In contrast, the USAIS teaches the what of courses of action specifies results relative to the enemy, terrain, and friendly force. Moreover, the why of courses of action is the purpose for achieving those results. Furthermore, the how becomes a detailed concept of operation.

Equally important, I noted the USAIS procedure to develop courses of action highlights the principle of war, objective. The USAIS method addresses the decisive aspects of objective in step "b." "Identify the purpose to be achieved by the main and supporting efforts."[15] Step "c" requires students to "determine the essential tasks of subordinate units;"[16] thereby, addresses problem areas of defining objectives. Furthermore, this step requires

students to define objectives in terms relative to enemy, terrain, and friendly forces. Finally, this method focuses on attainability. Step "d" directs students to "assign subordinate headquarters assets...."[17] In sum, the USAIS wanted to ensure students' courses of action embodied the principle of objective.

To summarize, my major observation is the USAIS IC was two and one half times more favorable than the USAARMS. My analysis, examination, and comparison of these schools teaching methods revealed the USAIS teaches the first two steps of the estimate different from the USAARMS. Specifically, the USAIS teaches construction of mission statements and development of courses of action different from the USAARMS. Herein lies the cause for the disparity between the schools' ICs.

Tactical Task Analysis

Also, I analyzed use of tactical tasks in both school's orders. Tables 7 and 8 summarize this analysis.

Overall, the USAIS used 14 different tactical tasks out of 53 total taskings. Terrain related taskings accounted for 36 percent of all taskings. The USAIS used four out of five different terrain tasks. Furthermore, enemy related taskings represented 40 percent of the total. Infantry School orders contained seven different enemy related tasks. Finally, friendly force tasks composed 24 percent of all tasking listed in the USAIS orders. These

orders used three different friendly force tasks.

On the other hand, the USAARMS orders, in the total 29 taskings, used 9 different tasks. Interestingly enough, 4 different friendly force taskings reflected 41 percent of all taskings in those orders. Next, three enemy related taskings constituted 31 percent of the 29 tasks. Last, the USAARMS orders contained two different terrain related tasks which accounted for 28 percent of the total tasks.

This data highlights several noteworthy trends. Overall, the USAIS focused on two primary tasks; seize and destroy. However, the USAIS employed a wider variety of terrain and enemy related tasks. Also, the USAIS appeared to arrange these terrain and enemy tasks to place the enemy force in areas or locations where they could be easily destroyed. Additionally, the variety of enemy related tasks increased in the friendly situation for defensive operations. Meanwhile, the USAIS reduced defensive maneuver paragraph enemy taskings almost exclusively to destroy. Furthermore, taskings to mechanized Co/Tm oriented almost exclusively on terrain retention.

Again, summarized data in Table 8 underscores USAARMS reliance on seize and destroy as well. USAARMS taskings in defensive operations oriented heavily on enemy force destruction. However, in offensive operations USAARMS orders balanced terrain and friendly force taskings.

USAIS TACTICAL TASKS SUMMARY

Offensive Operations

Task	Frequency	Percentage	Orientation
seize	11	39	terrain
occupy	4	14	friendly force
clear	2	7	terrain
screen	2	7	friendly force
destroy	2	7	enemy
suppress	2	7	enemy
support by fire	2	7	enemy
secure	1	3	terrain
block	1	3	enemy
recon	1	3	terrain/enemy

Defensive Operations

Task	Frequency	Percentage	Orientation
destroy	7	28	enemy
retain	5	20	terrain
screen	3	12	friendly force
block	3	12	enemy
occupy	3	12	friendly force
contain	2	8	enemy
canalize	1	4	enemy
displace	1	4	friendly force

Overall Totals

Task	Frequency	Percentage	Orientation
seize	11	21	terrain
destroy	9	17	enemy
occupy	7	13	friendly force
retain	5	9	terrain
screen	5	9	friendly force
bloc	4	7	enemy
clear	2	7	terrain
suppress	2	7	enemy
support by fire	2	7	enemy
contain	2	1	enemy
canalize	1	1	enemy
recon	1	1	enemy
secure	1	1	terrain
displace	1	1	friendly force

TABLE 7

USAARMS TACTICAL TASKS SUMMARY

Offensive Operations

Task	Frequency	Percentage	Orientation
seize	6	32	terrain
follow and support	4	21	friendly force
recon	3	16	enemy
screen	2	10	friendly force
guard	2	10	friendly force
secure	1	5	terrain
support by fire	1	5	enemy

Defensive Operations

Task	Frequency	Percentage	Orientation
destroy	5	50	enemy
occupy	3	30	friendly force
screen	1	10	friendly force
seize	1	10	terrain

Overall Totals

Task	Frequency	Percentage	Orientation
seize	7	24	terrain
destroy	5	17	enemy
follow and support	4	14	friendly force
recon	3	10	friendly force
screen	3	10	friendly force
occupy	3	10	friendly force
guard	2	7	friendly force
secure	1	3	terrain
support by fire	1	3	enemy

TABLE 8

I concluded various tasks given in schools' orders reflects each branches' perceived contribution to the Army's combined arms concept. The Infantry School teaches tasks designed to create conditions for decisive action involving other armored units. Likewise, the USAARMS taskings indicate the infantry plays a supporting yet decisive role. In sum, both schools perceive infantry as the versatile member of the combined arms team, and armor as the branch best suited for destruction of enemy armored forces.

However, both schools continued use of control measures as tasks or missions, particularly in defensive operations, indicates the importance of these terms is not fully realized. Tactical tasks, not control measures, express results oriented on terrain, enemy, or friendly forces. Commanders must use tasks in their concepts of operation to describe how they plan to generate effects of combat power.

Furthermore, both schools unnecessarily inhibit OAC students' ability to develop concepts of operation when they limit the number and type tasks used in tactical instruction. Undoubtly, tasks of seize and destroy form the basis of many concepts of operation. Nevertheless, the USAARMS needs to incorporate a greater variety of tasks to enhance students tactical thinking. Although the USAIS uses a wider variety of tasks, their orders need more tasks

related to friendly forces interjected into teaching scenarios. Specifically, friendly force tasks need to concentrate on security issues. This would, for example, assist in clearing up counter-recon issues in unit training.

END NOTES FOR CHAPTER 5

1. Richard W. Budd, Robert K. Thorpe, and Lewis Donohew, Content Analysis of Communication, (New York: The MacMillan Company, 1967), p. 69.

2. Stephens to Tezza, 3 February 1989. Discussion took place in Bell Hall as part of visiting faculty visit for MMAS.

3. John C. Condon, Jr., Semantics and Communications, (New York: MacMillan Publishing Company, Inc., 1971), p. 18.

4. Interview, Captain Stu Whitehead, 3 March 1989, United States Army Command and General Staff College, Fort leavenworth, KS. (Cited hereafter as interview, Whitehead.)

5. ST 100-9, The Command Estimate, (Fort Leavenworth. KS: U.S. Army Command and General Staff College, 1988), p. 2-1.

6. ST 100-9, The Command Estimate, (1988) p. 2-1.

7. Interview, Whitehead.

8. Interview, Whitehead.

9. Student Handout, Tactics Division, Combined Arms Tactics Department, Undated United States Army Infantry School, Fort Benning, GA. (Cited hereafter as Student Handout, USAIS)

10. Student Handout, USAIS

11. SH 7-5, Operations Handbook (draft), (Fort Benning, GA: United States Army Infantry School, 1987) and Summary Sheet "The Battalion Commander and Staff Guide to the Estimate of the Situation," (Fort Benning, GA: Tactics Division, Combined Arms Tactics Department, United States Infantry School, January 89), pp. 22-29. (Cited Hereafter as Summary Sheet, "Commander and Staff Estimate".)

12. SH 7-5, Operations Handbook (draft), (1987).

13. Interview, Whitehead.

14. ST 100-9, The Command Estimate, (1988), p. 3-6.

15. SH 7-5, Operations Handbook (draft), (1987) and Summary Sheet, "Commander and Staff Estimate," p. 22.

16. SH 7-5, Operations Handbook (draft), (1987) and Summary Sheet, "Commander and Staff Estimate," p. 22.

17. SH 7-5, Operations Handbook (draft), (1987) and Summary Sheet, "Commander and Staff Estimate," p. 22.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

"If we teach it and don't believe it, we're all frauds."[1]

General DePuy

Does substance, content, and construction of mission statements in tactical instruction at USAIS and USAARMS support the army's current C^2 doctrine? This study shows USAIS instruction is in complete harmony with the Army's current C^2 doctrine. However, USAARMS instruction, although similar, does not fully support implementation of mission orders.

Although both branch schools teach the same substance and content of mission statements, they differ in instruction on construction of mission statements. The USAIS stressed using tactical tasks (eg., seize) coupled with purposes to construct mission statements. On the other hand, the USAARMS teaches OAC students to construct mission statements using types of operations and control measures as tasks and tactical tasks as purposes.

Major Discoveries

The Army based its current C^2 doctrine on the German Army's traditional method of command -- "Auftragstaktik."

This change requires commanders to tell each subordinate what must be done and why. The "what" must describe clear results relative to enemy, terrain, or friendly force. Equally important, commanders must tell their subordinates why they must achieve their assigned tasks. This helps subordinates understand how their mission fits into their superiors' concepts of operation. This understanding acts as the mainspring of initiative as described in the 1986 FM 100-5.

Furthermore, commanders should not prescribe precise methods of execution of missions assigned to subordinates. However, commanders base this decision on their assessment of each subordinate's tactical competence.

Analysis of both schools' orders used in OAC tactical instruction revealed the USAIS achieved a ratio of favorable to unfavorable content two and one-half times greater than the USAARMS. Equally important, this study discovered the cause of these results. The USAIS teaches mission analysis and course of action development differently from the USAARMS.

The USAIS teaches a method of mission analysis and course of action development in total harmony with the Army's current C^2 doctrine. The self-interrogative process used in OAC assists students to understand how their mission fits into their superior's concept. Moreover, this

process helps students recognize how their superior's mission meshes with his commander's concept and mission.

Equally important, the USAIS instruction on course of action development helps OAC students build concepts of operation which help subordinates understand how they plan to generate effects of combat power. In short, the USAIS teaches students to give subordinates tasks which express clear results. Also, students must tell subordinates the purpose of the task(s). Consequently, the USAIS teaches thought processes and communication behaviors required to implement mission orders.

Although the USAARMS teaches the same basic processes, OAC students are taught to construct mission statements using types of operations and control measures as tasks. Types of operation and control measures do not express clear results. Therefore, this instruction does not fully support implementation of mission orders.

Conclusions

The Army's current C^2 doctrine requires uniformity of tactical thinking and commanders must give subordinates clear tasks to express their concepts of operations. Uniformity of tactical thinking requires commonly known and understood thought and decision-making processes. As a result, the Army must 1) develop a comprehensive and precise tactical language; and, 2) modify portions of its current estimate process.

This study highlighted the importance of subordinates understanding how their mission related to their commander's concept. Furthermore, this study stressed the necessity of subordinates recognizing how their superior's mission fit into his superior's concept. Leader courses must teach students to think tactically two levels above their current duty position. Therefore, the USAIS and USAARMS must revamp tactical instruction in other leader courses.

Recommendations

1. Recommend Commander, Combined Arms Center (CAC) direct the revision of FM 101-5-1, Operational Terms and Symbols.

Mission orders require precise language. This language express tasks clearly. These tasks must convey specific results relative to the enemy, terrain, or friendly force. The tasks listed in Appendix 1 provides clarification of many current terms and several potentially useful new terms.

Furthermore, I recommend the Commander, CAC direct the revision of FM 101-5-1 to develop and include graphical symbols for each task. The Army emphasizes the use of overlay orders. However, the current FM 101-5-1 does not provide commanders with necessary means to graphically portray results relative to the enemy, terrain, or friendly force.

Interoperability is a pressing concern for upgrading of our graphics. The U.S. Army is involved in numerous security arrangements, the most notable of which is in NATO and Korea. Only a few officers and NCOs speak German, Dutch, French (NATO) or Hongul (Korea). Graphical symbols representing tasks common to all these armies are easier to master than being fluent in any given foreign language. We require our soldiers to master an international road sign test before they can drive. Is it asking too much, perhaps, for our Army to master international jointly developed and agreed upon tactical symbols? I do not think so.[2]

Equally important, battlefield C^2 systems and other advanced data display systems are ideal channels to exploit the potential of concept sketches/overlays. Control embodies three concepts: simplicity, flexibility, and security. This system is simple. It can handle a large capacity of information, therefore, it is flexible. And finally, burst transmission makes it survivable and ensures its security.[3] Commanders with mere movements of a cursor on a scr[illegible] no[illegible]ve means to convey their concepts provided an extensive and detailed dictionary of tactical symbols exist. By sending a series of sketches, in a matter of secon[illegible] burst transmissions) commanders can rapidly disseminate their decisions. In short, the Army must recognize potential of "Command Graphics" for

interoperability and emerging technology for battlefield C^2 systems. Remember, one picture says a thousand words.

2. Recommend Commander, Combined Arms Training Activity direct Army Research Institute (ARI) to conduct content analysis studies of orders issues by Operations Groups and units training at the Combat Training Centers (CTCs). Furthermore, ARI should also analyze content of fragmentary orders issued by radio after execution begins and overlay orders.

This study demonstrated the usefulness of content analysis techniques to assess substance and construction of tactical orders. Moreover, the Army also disseminates doctrine through unit training at the CTCs. In sum, Commander, CAC could examine content analysis trends between leader training in branch schools and unit training at CTCs.

3. Commander, CAC direct commandants of other combat, combat support, and combat service support branch schools to examine use of command and support relationships only as missions. These relationships outline inherent responsibilities. However, these inherent responsibilities do not prescribe specific results relative to the enemy, terrain, or friendly force.

For example, maneuver commanders often assign engineers counter-mobility missions. What do commanders want? Instead, suppose a commander told an engineer "my

priorities are first, canalize enemy movement west along y-road. Second, contain enemy forces east of x-town along x-road. Finally, block enemy movement west along z-highway." The terms contain, canalize, and block all help commanders convey to engineers desired results of their counter-mobility efforts and how they impact on his concept. So, I believe maneuver commanders must give tactical tasks to other supporting branches as well.

To summarize, command and support relationships do not help maneuver commanders describe their concept of operation. Likewise, command and support relationships do not help combat and combat service support commanders understand maneuver commanders' concepts of operation. Consequently, other branch schools need to understand the necessity of giving tactical tasks. Furthermore, these schools must disseminate these tasks through tactical instruction in various leader courses.

4. Commander, CAC direct commandants of the USAIS and USAARMS to revise Chapter 2, Command and Control, and Annex B, Combat Orders, of both FM 71-2J and FM 71-1J. One author studying the Army's C^2 problems at CTCs noted, "The fault lies not with FM 100-5 but with the application of [C^2] doctrine to tactical level manuals."[4] Doctrine writers must make descriptions of the leader's estimate easy to understand. Moreover, example orders must reflect the substance of FM 101-5. The USAIS instructors produced

documents which assist students in learning and understanding the estimate and provided examples illustrating the substance and concepts of FM 100-5 and FM 101-5. This work represents a step in the right direction.

In closing, effective teaching results in students knowing, understanding, and accepting the subject matter. Every leader must teach the Army's current C^2 doctrine. This study provides means to know, understand, accept, and disseminate underlying principles of mission orders and many of its attendant issues.

END NOTES FOR CHAPTER 6

1. Paul H. Herbert, Deciding What has to be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations, (Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, July 1988), p. 28.

2. Robert J. Tezza, "Language and Communication as Tools of the Tactician," (unpublished Talking Paper, 3 April 1987), p. 4.

3. Tezza, p. 4.

4. Michael A. Burton, "Command and Control: Is the U.S. Army's Current Problem With Decentralized Command and Control a Function of Doctrine or Training?" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 6 December 1986), p. 36.

APPENDICIES

TACTICAL TASK LIST

All page references are to FM 101-5-1.

a+1. Assault: See p. 1-7. Those forces charged with passing through a breach in an enemy fortified position or strong point and seizing an objective or completing destruction of the enemy.

+2. Block See p. 1-11. A task assigned to a unit which requires it to deny the enemy access to a given area or to prevent enemy advance in a given direction. It may be for a specified time. Units assigned this task may have to retain terrain and accept decisive engagement. A unit so tasked has great freedom of action to achieve the desired result, but the tasker must indicate whether the enemy is to be denied access to a given area or a specific direction. Additionally, the enemy may be blocked for a specified period of time.

e.g., "block enemy from crossing the UPATO CREEK."

e.g., "block enemy movement to the south from vic NB142326."

+3. Breach: See p. 1-12. The employment of any means available to break through or secure a passage through an enemy defense, obstacle, minefield, or fortification. The intent is to create a "passage" for a force or element through an obstacle.

4. Bypass: See p. 1-12. Reference the engineer symbols on p. 2-43, these are primarily a physical bypass on a route. However, an enemy or friendly unit may be "bypassed" in a similar way.

+5. Canalize: See p. 1-13. More precisely it means to channel the enemy into a particular direction, therefore, the desired direction must be stated in the tasking.

*6. Clear: A task which anticipates and requires the destruction of an enemy force, seizure of key terrain, and the reduction of obstacles all of which would collectively delay or preclude the movement of following forces. As such, a forward passage of lines is inherent in the tasking. Additionally, a unit so tasked requires engineers and/or infantry to clear an area, route, road, etc. (As a result this task is in all likelihood rater time consuming.)

e.g., "clear highground vic NB134456."

e.g., "clear road INSBUCK-Hilbrown."

+7. Contain: See Pp. 11-19. To restrict enemy movement by stopping, holding, or surrounding his forces or causing them to center their activity on a given front to prevent the movement of nay part of his forces for use elsewhere. The limits of the containment may be expressed in terms of geography or time. A task which restricts an enemy's freedom of action within a defined area. As in "block" it may be for only a specific period of time.

e.g., "contain enemy forward of phaseline BLUE and the river HAUNE."

e.g., "contain enemy forward of HIBRON-AHSBUST-TIERNSE."

8. Demonstrate: This tasking, when given to a unit at the task force level, requires the unit to be observed by the enemy beyond the range of direct fire weapons. As a result this is not a common task except in terrain which provides virtually unobstructed observation, such as some deserts or mountains. With current weapon systems this is a rather daring requirement. The is not a demonstration.

*9. Destroy (Enemy Forces): To physically disable the majority of enemy vehicles and to kill the majority of the enemy soldiers. A task focused solely on the enemy force rendering them physically incapable of combat.

10. Disengage: See p. 1-26. See Disengagement.

11. Displace: See p. 1-26. A unit displaces when it is not engaging an enemy force, otherwise it must be first disengaged.

*12. Exfiltrate: To move from an enemy area with maximum stealth. a task which can be very time consuming. Additionally, the level of command may be controlled to limit freedom of action of execution.

e.g., "exfiltrate by platoons to vic NB123456."

e.g., "exfiltrate to vic NB341213."

13. Exploit: NOT AN EXPLOITATION!, rather a task focusing a force on the development of enemy actions, or development of a friendly situation to achieve a higher commander's goal or intent. "Exploit" is the most unrestricted task an element may receive. Normally, it is issued in a FRAGO during execution committing a reserve. The commander so tasked must be able to act independently, guided only be his higher commander's intent and his own assessment of what can be accomplished as a result of the opportunities inherent with the current situation.

14. Feint: See p. 1-31. Task intended to draw the enemy's attention away from the area of the main attack, which induces the enemy to move his reserves or to shift his fire support in reaction to the feint. Feints must appear real; therefore, some t=contact with the enemy is required.

15. Fix: See p. 1-32. Actions taken to prevent the enemy from moving any part of his forces from a specific location and/or for a specific period of time by holding or surrounding them to prevent their withdrawal for use elsewhere. Generally a task given to one element to allow another friendly element to move to a position of advantage in relation to the enemy force "fixed," or to prohibit the "fixed" force from interfering and/or moving to fire on another friendly force.

16. Follow and Support: See p. 1-33. Such a force is not a reserve but is committed to accomplish any or all of these tasks: destroy bypassed units; relieve in place any direct pressure or encircling force which has halted to contain the enemy; block movement of reinforcements; secure lines of communication (LOC); guard prisoners, key areas, and installations; secure key terrain; and control refugees.

+17. Guard: See p. 1-36. Accomplishes all the tasks included in screen. Additionally, a guard force prevents enemy ground force reconnoiters, attacks, defends, and delays as necessary to accomplish its mission. A guard force normally operates within the range of the main body indirect fire weapons. A security task in which the tasked

element has the responsibility and obligation to fight as necessary, to protect the friendly force it is securing.

+*18. Infiltrate: To move into an enemy area with maximum stealth; a time consuming process. The level of infiltration may be controlled by limiting the infiltration by size units, time, or both.

e.g., "infiltrate by platoons vic NB123451 to destroy enemy vic NB131462 by 120600 NOV."

+19. Interdict: See p. 1-39. The purpose must clearly delineate what the interdiction must achieve. Is it to "isolate," or "seal off" an area; or is it to prevent, hinder, or delay the use of an area or route by enemy forces? The purpose cannot be ambiguous.

+20. Neutralize: See p. 1-39. When so tasked a unit must clearly understand what must be "neutralized." It is ambiguous to simply state "neutralize enemy preparation," or "neutralize enemy security forces" is more precise.

+21. Occupy: To task a unit to move and physically position itself in a specified area. The command issuing the task does not envision the unit to have to fight to accomplish the task (i.e., "to seize").

22. Overwatch: A task, as described on p. 1-54, issued during the movement prior to enemy contact. Sometimes confused with "support by fire" which the unit may have to do if enemy contact is made.

+*23. Penetrate: To gain or force physical entry into an enemy's defensive position or area. This requires the force to physically enter the enemy's area or position.

+*24. Pursue: NOT A PURSUIT! To task a unit to maintain contact with an enemy force. a limitation can be given as to how or where it can accomplish the contact.

*25. Retain: A task orienting a friendly force on specific terrain (usually key or decisive) with the desire to preclude enemy occupation and use of the terrain. This task assists in "shaping" the battlefield, protecting flanks, or as a position thorough which a counterattack may be launched.

e.g., "retain highground vic MB432331."

e.g., "retain crossing sites vic MB524322."

The purpose of the retention is key in fulfilling this task. Directing units to retain "battle positions" is incorrect; the BP is merely a control measure which limits the freedom of action of a unit to a specified area.

+26. Screen: See p. 1-64. Task to provide early warning to the main body, impedes and harasses the enemy with supporting indirect fire, and destroys enemy reconnaissance elements within its capability. The force so tasked is not intended to engage/fight the enemy except in self defense. Its freedom of action is limited in its physical proximity to the friendly force it's securing.

+27. Secure: See 1-64. The command issuing the task during an attack does not anticipate the unit to have a fight to gain secured" is not yet in possession of the friendly force, nor in control of the enemy. After securing the area the unit may then have to fight. This task offers more freedom of action than does "retain."

*28. Seize: A task which is intended to take control of an area or terrain from an enemy force. The enemy must be destroyed (or so it is envisioned) in order to "seize" terrain. Although consolidation is accomplished, "seize" anticipates other taskings in addition to merely seizing the objective area. As in other cases the purpose for the seizure is necessary to allow initiative by subordinates.

e.g., "seize highground vic NB123456."

e.g., "size crossing sites vic NB142789 and block enemy movement east."

+29. Support by Fire: A description of how a unit is limited in producing specific results (tc suppress, fix, destroy, etc.) by fire only, from a general area. The specific results must be clearly stated as well.

+30. Suppression: See p. 1-68. "Suppression."

Notes: * Denotes currently not found in FM 101-5-1.
+ Denotes also found in Department of Defense Dictionary of Military and Associated Terms, JCS Pub 1, 1 Jun 87.

APPENDIX 2

SECRET FOR TRAINING

Copy ____ of ____ copies
TF 3-81, 1st Bde
FT. BENNING (GL053905)

OPERATION ORDER 3

Reference: Ft. Benning, GA reservation map 1;50,000

Time Zone Used Throughout Order: ROMEO

TASK ORGANIZATION:

CO A (-)	TM Tank	TM C
	B/3-25 AR (-)	C/3-81 Mech (-)
	1/A/3-81	2/B/3-25 AR
		3/E/3-81 Mech

TM D	TM E	TF Control
D/3-81 Mech	E/3-81 Mech (-)	Scout Plt
1/B/3-25 AR	3/c/3-81 Mech	Hvy Mortar
		B/54 Engr (DS)
		1/1/A/3-441 (S) (DS)

TF Trains

1. SITUATION

a. Enemy Forces (Annex A-Intelligence)

(1) A BTR-equipped MRB reinforced with T-64 tanks, has established company strong points vicinity Hill 456 (GL031985), Hill 525, (GL040995) and the high ground vicinity GL055005.

(2) The enemy has used both persistent and non-persistent chemical agents within the last 24 hours. (Annex D - Contaminated Areas).

(3) The enemy has the capability to block the high speed avenues of approach leading north toward HWY 80 (Macon Road) and HWY 27. The battalion counterattack force is a tank platoon located vicinity of the high ground at GL032005. This is the most serious counterattack threat in our zone.

(4) It appears that the 39th MR Regt has retained the majority of its tank battalion as a reserve. This element is located vicinity GL0606.

b. Friendly Forces

(1) 1st Bde, seized highground from GL 0398 to GL0802 nlt JAN ____ in order to divert the enemy's attention towards Hill 525 (GL040995) away from the 2d BDE, the division main effort.

(2) 52d CAB, on our west, screens Division's west flank in order to prevent surprise attacks from the west.

(3) TF 3-25 Armor, to our south, on order secures high ground vicinity GL0306 in order to prevent enemy attacks against the west flank of 2d BDE, the division main effort.

(4) 3-80 Mech, to our south, follow and supports TF 3-25 AR in order to insure that units uninterrupted advance.

2. MISSION

TF 3-81, clears 10th AD RD from GL040995 (Hill 525) to GL033987 (Hill 456) nlt 08 1800 Jan in order to open up an axis of advance north to HWY Alt 27 for TF 3-25, BDE main effort.

3. EXECUTION

a. Intent. My intent is to divert the enemy's attention to the south on the likely avenues of approach long enough to allow the decisive ground to be seized from the west.

b. Concept of operation (Annex B Operations Overlay)

(1) Maneuver (Appendix 1 concept sketch to Annex B opns Overlay) Co A seizes high ground vicinity GL033987 in order to divert enemy attention towards Red Arrow Road. TM E secures high ground vicinity GL052990 (Hill 480) in order to divert enemy's attention Midwest Road; C/O screen TF east flank in order to prevent possible enemy attacks from the east. TM Tank seizes high ground vicinity GL030005 (OBJ Bill) in order to prevent probable enemy counter attacks from the north/northwest against TM D, TF main effort. TM D, main effort clears high ground vicinity GL040995 (OBJ Joe Hill 525) in order to open up an axis of advance north along HWY Alt 27. TM C, reserve follows TM D.

(2) FIRES

(a) Initial Priority Targets

(1) Mortars to TM E obscuration/suppression on BF 008 and BF 013. TM E commander will control. Priority shifts to Tm Tank for suppression on target BF010. TM Tank will control. When TM D begins assault priority shifts to suppression on targets BF 011, BF 014, BF 012 and BF 013. TM D will control.

(2) FA to Co A suppression on target group B1F in order to allow Co A to seize Hill 456. TM A will control, then to TM D. Suppression on B2F in order to allow TM D to clear Hill 525.

(3) OMF: N/A

c. Co A: (1) Assist the engineer in the clearance of 10th AD Rd from GL030989 to GL028777.

(2) Man contact point 1. Provide guides for forward passage along 10 AD RD.

d. TM Tank: Be prepared to cover north flank of TM D during clearance of hill 525 (OBJ Joe).

e. TM D.:

f. TM C:

g. TM E.

h. Scout Plt:

(1) Recon Axis orange and blue in order to ensure uninterrupted movement of the TF.

(2) Recon Hill 525 (GL040995) and Hill 456 (GL033987) in order to confirm/identify enemy positions/obstacles.

(3) On order, screen TF north flank from GL020017 to GL050025 in order to provide early warning against probable enemy c/atks.

i. Heavy Mortars:

(1) Establish positions vicinity GL016967.

(2) Move along axis green following TM E and along Axis orange and blue following TM TK.

j. Engineers:

(1) Priority of effort to mobility operations in zone.

(2) Priority of support to Co A initially, then to TM D.

(3) Co (-) will move with Tm D. One plt will move with Co A.

(4) Once assault has been initiated on OBJ JOE, priority of mobility efforts to the clearance of 10th ARMOR DIV RD, from GL 030984 to GL028977.

k. Stingers: GS. Priority to Co A. Tm D, TF heavy mortars and TF Trains, move with Co A, Tm D, TF heavy mortars and TF trains.

l. Coordinating instructions:

(1) MOPP 2 effective 081200 JAN.

(2) PL HIT is the line of contact.

(3) Passage lane White is from CP 1, north along RED ARROW 10th ARMOR DIVISION ROAD to passage point 2.

(4) Co A and TM E cross LD (Buena Vista Rd) at 081400 Jan.

4. SERVICE SUPPORT: No Change

5. COMMAND AND SIGNAL

a. Command

(1) Command group moves initially with Co A then with Tm D.

(2) TF XO moves with Tm Tank.

b. Signal
(1) Current CEOI in effect.

ACKNOWLEDGE:

JONES
LTC

OFFICIAL:
TEZZA

ANNEXES: A - Intelligence Overlay
B - Operations Overlay
C - Fire Support Overlay
D - Chemical Contaminated Area Overlay

BIBLIOGRAPHY

BIBLIOGRAPHY

BOOKS

Baxter, William P. Soviet AirLand Battle Tactics. Navato: Presidio Press, 1986.

Berlo, David K. The Process of Communication. San Francisco: Holt, Rinehart and Winston, Inc., 1960.

Bloomfield, Leonard. Language. New York: Holt and Company, 1933.

Budd, Richard W. and Ruben, Brent D. Approaches to Human Communication. Rochelle Park, New Jersey: Hayden Book Company, Inc., 1977.

Budd, Richard W. and Thorp, Robert K. and Donohew, Lewis. Content Analysis of Communications. New York: The MacMillan Company, 1967.

Collins, Arthur S. Common Sense Training. Navato: Presidio Press, 1978.

Condon, John C. Jr. Semantics and Communication. New York: MacMillan Publishing Co., Inc., 1975.

Devito, Joseph A. Communication: Concepts and Processes. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1971.

Fabre, Maurice. A History of Communications. New York: Hawthorn Books, Inc., 1964.

Fuller, J. F. C. Armored Warfare. London, Great Britain: Wyre, Spottiswoode Ltd., November 1943.

_____. The Foundations of the Science of War. London, Great Britain: Hutchinson and Company, LTD., 1926.

_____. Generalship Its Diseases and Their Cure. Harrisburg, PA: Military Service Publishing Co., March 1936.

Hastings, Max. Overlord: D-Day and the Battle for Normandy. New York: Simon and Schuster, Inc., 1984.

Hayakawa, S. I. Language in Action. New York: Harcourt, Brace and Company, Inc., 1941.

Marshall, S. L. A. Men Against Fire: The Problem of Battle Command in Future War. Gloucester: Peter Smith, 1978.

Pei, Mario. The History of Language. Philadelphia: J. B. Lippincott Company, 1949.

Read, Hadley. Communication: Methods for all Media. Chicago: University of Illinois Press, 1972.

Simpkin, Richard E. Race to the Swift: Thoughts on Twenty-First Century Warfare. New York: Brasey's Defence Publishers, 1986.

Stone, Philip J. and Dunphy, Dexter C. and Smith, Marshall S. and Olilvie, Daniel M. The General Inquirer: A Computer Approach to Content Analysis. Cambridge, Massachusetts: The M.I.T. Press, 1966.

Sun Tzu. The Art of War. New York: Oxford University Press, 1961.

Van Creveld, Martin. Command in War. London: Harvard University Press, 1985.

von Schell, Adolf. Battle Leadership. Columbus: The Benning Herald, 1933.

GOVERNMENT DOCUMENTS

ARTEP 71-2-MTP, The Mission Training Plan for the Tank and Mechanized Infantry Battalion Task Force. Washington, DC: Headquarters, Department of the Army, September 1988.

Brownlee, Ronnie L. and Mullen, William J. III. Changing an Army: An Oral History of General William E. DePuy, USA Retired. Carlisle Barracks: United States Military History Institute, 1979.

FC 101-55, Corps and Division Command and Control. Fort Leavenworth, KS, 1985.

FM 22-100, Military Leadership. Washington, D.C.: Headquarters, Department of the Army, 1983.

FM 22-103, Leadership and Command at Senior Levels. Washington, D. C.: Headquarters, Department of the Army, 1987.

FM 25-100, Training the Force. Washington, D.C.: Headquarters, Department of the Army, 1987.

FM 71-2, The Tank and Mechanized Infantry Battalion Task Force. Washington, D.C.: Headquarters, Department of the Army, June 1977.

FM 71-2J, The Tank and Mechanized Infantry Battalion Task Force. Washington, D.C.: Headquarters, Department of the Army, September 1988.

FM 100-5, Operations. Washington, D.C.: Headquarters, Department of the Army, 1976.

FM 100-5, Operations. Washington, D.C.: Headquarters, Department of the Army, 1982.

FM 100-5, Operations. Washington, D.C.: Headquarters, Department of the Army, 1986.

FM 100-5, Operations (Coordinating Draft). Fort Leavenworth, KS: U.S. Army Command and General Staff College, February 1981.

FM 101-5, Staff Organization and Procedures. Washington, D.C.: Headquarters, Department of the Army, 1950.

FM 101-5, Staff Organization and Procedures. Washington, D.C.: Headquarters, Department of the Army, 1954.

FM 101-5, Staff Organization and Procedures. Washington, D.C.: Headquarters, Department of the Army, 1968.

FM 101-5, Staff Organization and Operations. Washington, D.C.: Headquarters, Department of the Army, 1972.

FM 101-5, Staff Organization and Operations. Washington, D.C.: Headquarters, Department of the Army, 1984.

FM 101-5, Staff Organization and Operations, Change No. 1 (Draft). Washington, DC: Headquarters, Department of the Army, June 1986.

FM 101-5, Operational Terms and Symbols. Washington, D.C.: Headquarters, Department of the Army, 1980.

FM 101-5, Operational Terms and Symbols. Washington, D.C.: Headquarters, Department of the Army, 1985.

JCS Pub. 1, Department of Defense Dictionary of Military and Associated Terms. Washington, D.C.: The Joint Chiefs of Staff, 1987.

Kesselring, Alfred. "Small Unit Tactics: Manual for Command and Combat Employment of Smaller Units."

Rendulic, Lothar. "The Command Decision." Foreign Military Studies Branch, Historical-Division, Headquarters, U.S. Army, Europe, Combined Arms Research Library, Fort Leavenworth, KS, undated.

_____. "Combat Orders." Foreign Military Studies Branch, Historical-Division, Headquarters, U.S. Army, Europe, Combined Arms Research Library, Fort Leavenworth, KS, undated.

FOREIGN MATERIALS

HDv 100/200, Army Command and Control System. Bonn, FRG: The Federal Minister of Defense, Army Staff - 111 6, 31 August 1972.

PERIODICALS AND ARTICLES

Basile, Vincent D. "Communications Within the Command Structure." The Army Communicator, Summer 1982, pp. 37-44.

Coats, W. J. and Mulkey, S. W. "Study in Newspaper Sampling: Coding For Items of Military Interests," Public Opinion Quarterly, Vol. 14, No. 3, (Fall 1950), pp. 533-46.

DePuy, William E. "Concepts of Operation: The Heart of Command, the Tool of Doctrine," Army, Vol. 38, No. 8, (August 1988), pp. 26-40.

Dierksmeier, Fred E. "The Impact of Mobile Subscriber Equipment," Military Review, Vol LXVII, No. 8, (August 1987), pp. 40-47.

Downing, Wayne A. "Training to Fight," Military Review, Vol. LXVI, No. 5, (May 1986), pp. 18-26.

Fastabend, David A. "The Application of the Commander's Intent," Military Review, Vol. LXVII, No. 8, (August 1987), pp. 60-68.

Filibert, Edward J. "Command, Control and the Commander's Intent," Military Review, Vol. LXVII, No. 8, (August 1987), pp. 54-59.

Heffernan, Walter B. Jr. "Tactical C-E: The Voice of Command - Maybe," The Army Communicator, Summer 1976, pp. 52-55.

Hughes, David R. "Our Unrecognized Battlefield Language," Military Review, Vol. XLIII, No. 5, (May 1963), pp. 38-45.

Jordan, Thomas M. "The Commander's Intent," Infantry, Vol. LXXVIII, No. (May-June 1988), pp. 11-12.

Long, Dennis H. "Command and Control - Restoring the Focus," Military Review, Vol. LXI, No. 11, (November 1981), pp. 44-48.

Neiva, V. F., Fleishman, E. A. and Reick, A. Team Dimensions: Their Identity, Their Measurement and Their Relationships. Washington, D.C.: Advanced Research Resources Organization, November 1978.

Nelson, John T. II. "Auftragstaktik: A Case for Decentralized Battle," Parameters, Vol. XVII, No. 3, (Fall 1987), pp. 21-34.

Newell, Clayton R. "Fog and Friction: Challenges to Command and Control," Military Review, Vol. LXVII, No. 8 (August 1987), pp. 18-26.

Phillips, T. R. "Solving the Tactical Equation," Review of Military Literature, Vol. XVII, No. 66. Fort Leavenworth: Command and General Staff School, 1937.

Roberts, Wesley K. "Battlefield Leaders for the Twenty-First Century: The Razor's Edge of Leadership," Military Review, Vol. LXVII, No. 11. Fort Leavenworth, Kansas: Command and General Staff College, November 1988.

Snow, Joel J. "AirLand Battle Doctrine Tenets in Opposition," Military Review, Vol. LXVII, No. 10 (October 1987), pp. 63-67.

Steele, Dennis. "Lessons Learned: 'What Happened Out There?'." Army, Vol. 39, No. 1, (January 1989), pp. 32-35.

_____. "Eleven Days in Arkansas Test Light Infantry Mettle." Army, Vol. 39, No. 2, (February 1989), pp. 38-46.

Tanksley, David M. "C : Finding the Middle Ground," Military Review, Vol. LXV, No. 11 (November 1985), pp. 52-55.

Tannenbaum, Percy H. "The Indexing Process in Communication." Public Opinion Quarterly, Vol. 19, No. 3, (Fall 1955), pp. 292-303.

Teston, Harvey A. "Command and Confusion at the NTC" Military Review, Vol. LXV, No. 11, (November 1985), pp. 456-464.

Timmerman, Fredrick W. Jr. "Of Command and Control and Other Things," Army, Vol. 35, No. 5, (May 1986), pp. 55-58.

von Lossow, Walter. "Mission-Type Tactics Versus Order-Type Tactics," Military Review, Vol. LVII, No. 6, (June 1977), pp. 87-91.

Wass de Czege, Huba. "How to Change an Army, "Military Review, Vol. LXIV, No. 11, (November 1984), pp. 32-49.

SPECIAL REPORTS AND STUDIES

Doughty, Robert A. The Evolution of U.S. Army Tactical Doctrine, 1946 - 76. Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, 1979.

Gorman, Paul E. et al. Final Report - Board for Dynamic Training. Fort Benning: Department of the Army, 1971.

Herbert, Paul H. Deciding What has to be Done: General William E. Depuy and the 1976 Edition of FM 100-5, Operations. Fort Leavenworth, KS: Combat Studies Institute, U.S. Army Command and General Staff College, July 1988.

Romjue, John L. From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982. Fort Monroe: United States Army Training and Doctrine Command, 1984.

Wray, Timothy A. Standing Fast: German Defensive Doctrine on the Russian Front During World War II (Prewar to March 1943). Fort Leavenworth, Kansas: Combat Studies Institute, U.S. Army Command and General Staff College, 1986.

UNPUBLISHED DOCUMENTS

Bullington, Terry W. "An Evaluation of AirLand Battle Doctrine and Training at the NTC." MMAS Thesis, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 5 December 1985.

Burton, Michael A. "Command and Control: Is the U.S. Army's Current Problem with Decentralized Command and Control a Function of Doctrine or Training?" Monograph, School of Advanced Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 6 December 1986.

Chief, Tactics Division, CATD, USAIS. "Critique of Colonel Landry's Mission-Oriented C^2." INFORMATION PAPER, in possession of author, 8 May 1987.

Chief, Tactics Division, CATD, USAIS. "Mission Orders and Commander's Intent Briefing to CTAC OPD." TRIP REPORT, in possession of author, 28 August 1987.

Director, Combined Arms Tactics Department, United States Army Infantry School. "Comments on Skills, Knowledge and Attitudes for Officers." DECISION PAPER, Tactics Division, CATD, USAIS, 6 May 1988.

Director, Combined Arms Tactics Department, United States Army Infantry School. "Initial Conclusions of the IOAC Front End Analysis." INFORMATION PAPER, in possession of author, 27 April 1988.

Director, Light Infantry Task Force, U.S. Army Infantry School. "Light Infantry Mission Training Plan (MTP) 0-6 Layout." INFORMATION PAPER, in possession of author, Tab A, Discussion: Mission Triangle.

Enclosure 1 (European Trip Book) to Letter, Subject: Commanding General's Report on visit to Europe, 21 October 1974. Fort Leavenworth, Kansas. Combined Arms Research Library.

Filibert, Edward J. "The Standard Operations Order Format: Is Its Current Form and Content Sufficient for Command and Control?." Monograph, School of Advance Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 14 December 1987.

Landry, John R. Memorandum for all Directorates, Subject: "Guidance for C^2." In possession of author, 22 March 1987.

Magruder, Lawson W. III. Summary of Tactics Huddle on 17 February 1987, Subject: "Analysis of Commander's Intent and Mission Orders." In possession of author, undated.

Malone, Dandrige M. The Train Watcher: A Collection of Colonel Mile Malone's Writings, Carlisle Barracks, PA: U.S. Army War College, 1982.

Melody, Paul E. "Analysis of Commander's Intent and Mission Orders." Talking Paper used for Tactics Division Officer Professional Development Class, in possession of author, 1 February 1987.

Memo from Chief. Tactics Division to Chief, Team 4, Subject: Colonel Landry's Article/Think Peace." In possession of author, 23 March 1987.

Memo from Chief, Tactics Team 4, to chief, Tactics Division, Subject: "Tactics Huddles." In possession of author, 10 January 1987.

Memo from Director, CATD to Chief, Tactics Division, Subject: "Center for Army Tactics Guidance for C^2." In possession of author, 22 March 1987.

Memorandum for Record, Subject: "Mission Oriented C^2." In possession of author, 29 July 1987.

Memorandum for Record, Subject: Phonecon LTC Rhoades, CTAC Division with COL Wass de Czege, CDR, 1st DBE 7ID and Principal Author FM 100-5, 1982. In possession of author, 12 February 1988.

Nelson, John T. II. "Where To Go From Here? Considerations for the Formal Adoption of Auftragstaktik by the U.S. Army." Monograph, School of Advanced Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 5 December 1986.

Rios, Leon H. "Will, Technology, and Command and Control." Monograph, School of Advanced Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 21 December 1985.

Runnals, Stephen E. "Command and Control: Does Current US. Army Tactical Command and Control Doctrine Meet the Requirements for Today's High Intensity Battlefield?" Monograph, School of Advanced Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 2 December 1985.

Schneider, James J. "The Theory of the Operational Art." School of Advance Military Studies, Theoretical Paper No. 3, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1 March 1988.

SH 7-5, Operations Handbook. Fort Benning, GA: U.S. Army Infantry School, 1987.

ST 100-9, "A Guide to the Estimate of the Situation." Fort Leavenworth, KS: U.S. Army Command and General Staff College, July 1985.

ST 100-9 "The Command Estimate." Fort Leavenworth, KS: U.S. Army Command and General Staff College, July 1988.

Starry, Donn A. Papers. Carlisle Barracks, PA: U.S. Army Military History Institute.

Tactics Division, Combined Arms Tactics Department. Student Handout, "Questions to Ask While Doing an Estimate." Fort Benning, GA: U.S. Army Infantry School, undated.

Tactics Division, Combined Arms Tactics Department, U.S. Army Infantry School. "Questions to Ask While Doing an Estimate (All Levels)." In possession of author, undated.

Tactics Division, Combined Arms Tactis Department Summay Sheet, "The Battalion Commander and Staff Guide to Troop Leading Procedures and the Estimate of the Situation." Fort Benning, GA: U.S. Army Infantry School, January 1989.

Tezza, Robert J. "Language and Communication as Tools of the Tactician." Talking Paper used for Tactics Division Officer Professional Development Class, in possession of author, 3 April 1987.

Thyne, James G. Jr. "Operations and Missions." Talking Paper used to discuss terms that have become confused in our tactical language." In possession of the author, 18 February 1988.

Vermillion, John M. "Tactical Implications of the Adoption of Auftragstaktik for Command and Control on the AirLand Battlefield." Monograph, School of Advanced Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, 31 December 1986.

Wass de Czege, Huba. "Understanding and Developing Combat Power." Course Special, AMSP Course 2, School of Advanced Military Studies, Fort Leavenworth, KS: U.S. Army Command and General Staff College, March 1984.

Witt, William H. "Information Engineering," Delta Force, Carlisle Barracks: U.S. Army War College, 1982.

INTERVIEWS

Whitehead, Stu. Interview with author. Fort Leavenworth, KS: Army Command and General Staff College, 3 March 1989.

INITIAL DISTRIBUTION LIST

1. Combined Arms Research Library
   U.S. Army Command and General Staff College
   Fort Leavenworth, Kansas 66027-6900

2. Defense Technical Information Center
   Cameron Station
   Alexandria, Virginia 33214

3. LTC W. Dees Stallings
   Center For Army Leadership
   USACGSC
   Fort Leavenworth, Kansas 66027-6900

4. Major Randy Robbins
   Center for Army Tactics
   USACGSC
   Fort Leavenworth, Kansas 66027-6900

5. LTC Lowndes F. Stephens
   443 Brookshire Drive
   Columbia, South Carolina 29210

DEPARTMENT OF THE ARMY
U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE
1 REYNOLDS AVENUE, BUILDING 111
FORT LEAVENWORTH, KANSAS 66027-1352

REPLY TO
ATTENTION OF

ATZL-SWY

2 May 2001

MEMORANDUM FOR ATTN: Larry Downing, DTIC-OCQ, Defense Technical Information Center, 8725 John J. Kingman Road, Suite 0944, Fort Belvoir, VA 22060-6218

SUBJECT: Request for Distribution Change

1. The following documents should be changed from distribution B to distribution A. The limitations have been removed and they are now publicly available.

THESIS	ACCESSION NO
Arracourt—September 1944	ADB067783
Criminal Investigative Activities, World War II and Vietnam, Battlefield Implications	ADB125460
Does the US Army Need a Full-Time Operations Other Than War Unit?	ADB225714
F-16 Low Altitude Navigation and Targeting Infrared System for Night and the Night Close Air S	ADB135971
Finite Element Analysis of Laser-Induced Damage to Mechanically Loaded Laminated Compo	ADB157706
Role of Army Intelligence in the Domestic Drug War	ADB149106
Should Members of the Military be Concerned about Television Coverage of Wartime Operation	ADB135563
Teaching Mission Orders in Officer Advance Course Instruction: Reality or Myth?	ADB135628
The Cut of the Scythe	ADB125547
The Light Infantry Division, Regionally Focused for Low Intensity Conflict	ADB150050
The Role of the Corps Air Defense Artillery Brigade	ADB148423
The Strategic Rationale for Special Operations Forces Employment	ADB157746

2. Thanks. Please let me know when they are done. My e-mail address is burgesse@leavenworth.army.mil, and my phone number is (913) 758-3171.

EDWIN B. BURGESS
Chief, Public Services
Combined Arms Research Library